DOCUMENT RESUME

ED 276 245 EC 191 717

AUTHOR	Prehm, Herbert J., Ed.
TITLE	The Future of Special Education. Proceedings of the Council for Exceptional Children Symposium (Lake Geneva, Wisconsin, May 1986).
INSTITUTION	Council for Exceptional Children, Reston, Va.; ERIC Clearinghouse on Handicapped and Gifted Children, Reston, Va.
SPONS AGENCY	Office of Educational Research and Improvement (ED), Washington, DC.
REPORT NO	ISBN-0-86586-171-4
PUB DATE	87
CONTRACT	400-84-0010
NOTE	392p.
AVAILABLE FROM	The Council for Exceptional Children, Publication Sales, 1920 Association Dr., Reston, VA 22091-1589 ($20.00, Publication No. B623).
PUB TYPE	Collected Works - Conference Proceedings (021) -- Information Analyses - ERIC Information Analysis Products (071)
EDRS PRICE	MF01/PC16 Plus Postage.
DESCRIPTORS	*Disabilities; *Educational Policy; *Educational Trends; Elementary Secondary Education; Exceptional Child Research; Federal Legislation; *Futures (of Society); Parents; *Policy Formation; Population Trends; School District Size; *Special Education; Special Education Teachers; Teacher Education; Trend Analysis
IDENTIFIERS	Council for Exceptional Children; Education for All Handicapped Children Act

ABSTRACT

The proceedings of the 1986 Symposium on the Future of Special Education contains 12 papers. Presenters represented the following groups: state education agency directors, large school district directors, small school district directors, teachers, parents, teacher educators, researchers, and Canadian school administrators. An initial paper by F. Weintraub presents the series of goals developed by the Symposium and the Council for Exceptional Children. The remaining papers have the following titles and authors: "Current and Emerging Forces Impacting Special Education" (J. Yates); "Implementation of P.L. 94-142 and Its Accomplishments, Problems and Future Challenges: A State Education Agency Perspective" (J. Schrag); "Special Education in a Small School District: Past, Present, and Future" (J. McGlothlin); "The Role of Research in the Future of Special Education" (J. Gallagher); "The Journey of a Teacher: Bridging Gaps, Traveling New Roads" (M. D. Barringer); "The Future of Special Education: A Parent's Case Study" (P. McGill Smith); "Education for Exceptional Students Case Study: A Large District 1976-1986" (D. Gillespie); "The Professional Odyssey of Dr. Kairo Aorist: A Case Study of Teacher Preparation in Special Education" (P. Cegelka); "Special Education in Canada: Past, Present and Future" (C. Hodder); "Special Education in the Year 2000 and Beyond: A Proposed Action Agenda for Addressing Selected Ideas" (M. Semmel); "Framework for Policy and Action in Special Education: An International Perspective" (R. Gall). Appended are lists of the symposium planning committee and the 50 participants. (DB)

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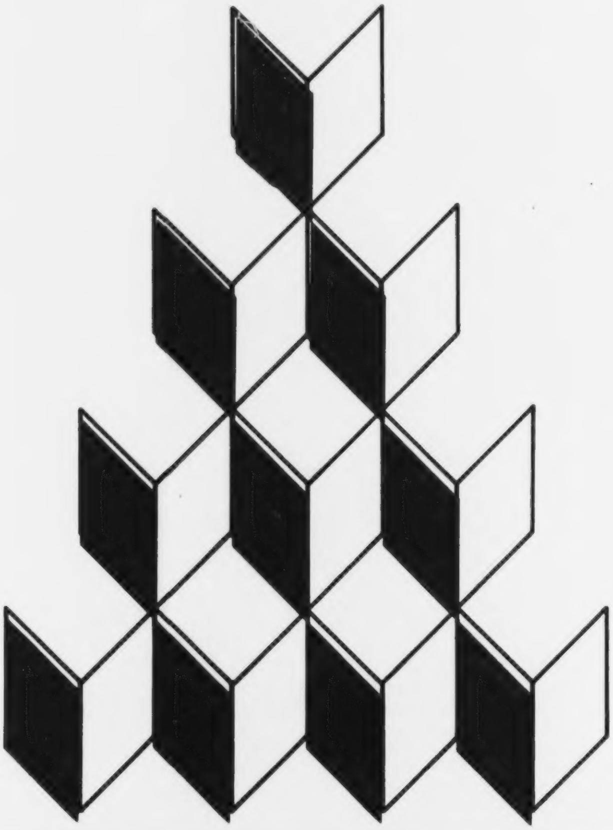
ED276245

Proceedings of the
May 1986 CEC Symposium

THE FUTURE OF SPECIAL EDUCATION

Edited by
Herbert J. Prehm



A product of the ERIC Clearinghouse on Handicapped and Gifted Children

Published by The Council for Exceptional Children

EC 191717

A product of the ERIC Clearinghouse on Handicapped and Gifted Children.

Published in 1987 by The Council for Exceptional Children, 1920 Association Drive, Reston, Virginia 22091-1589.

ISBN 0-86586-171-4

Stock No. B623 Price $20.00

OERI
Office of Educational Research and Improvement

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, contract no. 400-84-0010. Contractors undertaking such projects under government sponsorship are encouraged to express freely their judgment in professional and technical matters. Prior to publication the manuscript was submitted to The Council for Exceptional Children for critical review and determination of professional competence. This publication has met such standards. Points of view, however, do not necessarily represent the official view or opinions of either The Council for Exceptional Children or the Department of Education.

Printed in the United States of America.

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Preface

In Fall 1984, staff of The Council for Exceptional Children and the Foundation for Exceptional Children, unbeknownst to each other, were working on highly related projects. The foci of each organization's project was on (a) giving appropriate recognition to the fact that 1985 was the 10th anniversary of the passage of the "Education for all Handicapped Children Act", and (b) generating a set of goals that might guide the profession's efforts to provide exceptional children with the highest quality education well into the next century. Upon learning of one another's work, CEC and FEC decided to cooperate within the constraints of each organization's budget.

CEC and FEC each conducted events celebrating passage of the "Education for all Handicapped Children Act." Descriptions of these activities are not included within this Proceedings. In addition, CEC provided the Foundation with the facilities needed to conduct, during the 1986 CEC Convention, a one day "think tank" on the future of special education. Results of the think tank are summarized in a two page document which is available from the Foundation and served as a resource document for the two day symposium reported in these proceedings.

These Proceedings describe the results of a Symposium on the Future of Special Education. The Symposium was planned during 1985 and early 1986 by a small group of special education professionals representing The Council for Exceptional Children and the Foundation for Exceptional Children. Planning committee members are listed in Appendix A.

The Symposium on the Future of Special Education was held over a two day period at the Abbey Conference Center at Lake Geneva, Wisconsin. The goal of the two day meeting was to develop a set of goals which, when achieved, would provide exceptional children residing in Canada or the United States with a quality education well into the 21st Century.

The Symposium format was uniquely designed to achieve its goal. Participation in the Symposium was limited to 50 persons representing various special education interest groups. By keeping the group size small, discussion of issues was facilitated. Presentations were limited. The Symposium began with a presentation projecting the characteristics of the year 2000 from demographic, educational, etc., perspectives. This session was followed by a series of eight "case studies" which described changes occurring over the past 10 years as well as current and anticipated problems as seen by (a) state education agency director, (b) large school district director, (c) small school district director, (d) teacher, (e) parent, (f) teacher educator, (g) researcher, and (h) a Canadian school administrator. Symposium participants were mailed copies of each of these papers approximately three weeks prior to the symposium.

The papers listed above were discussed by the group rather than having a formal presentation on the topic.

Discussion of these papers was followed by two formal presentations. These presentations (one developed by a Canadian and one developed by an American) suggested goals, based on the preceeding discussions, which might be used by small discussion groups.

Symposium participants, each of whom represented one or more of the constituencies (e.g., parent and small district administrator) included in the "case studies", were divided into into four small groups. Small groups were charged with the responsibility for generating a series of suggested goals for the future of special education. Small groups were given approximately six hours to complete this task. Small group leaders along with Ellen Peters and Fred Weintraub from CEC staff then met to synthesize the results of the work of the four small groups.

The synthesis was presented to the entire group on the final day of the conference. Group discussion led to the adoption of a final set of eight goal statements with group concensus that were these goals achieved, **ALL** children would be provided the highest quality education.

The **Proceedings of the Symposium on the Future of Special Education** includes a variety of documents. Included are (a) the eight goal statements with elaborative comments designed to clarify the objective as well as relevant supporting quotations from the case studies; (b) the papers presented at the symposium; (c) a list of symposium planners (Appendix A); and (d) a list of symposium participants (Appendix B).

These proceedings will be distributed to a variety of groups both within (e.g., CEC Divisions) and without (e.g., Chief State School Officers) CEC. These groups will be requested to provide CEC with information which will strengthen the eight goals generated at the Symposium. This information will be used to prepare a final set of goals during CEC's Fall 1987 Topical Conference on the Future of Special Education.

Symposium participants found that the Symposium was both exhausting and energizing. It is our hope that these proceedings will energize you like it did those of us that had the privilege to participate.

Herbert J. Prehm, CEC
September, 1986

Goals for the Future of Special Education

Frederick J. Weintraub
Assistant Executive Director
The Council for Exceptional Children
Reston, Virginia

Goals for the Future of Special Education

From its introduction into North America in the early 1800's through the past decades of significant growth, special education has had a primary mission - to provide quality instruction to the exceptional learners of our society who are unable to appropriately benefit from the instruction commonly provided to most students. Through the efforts of special educators, parents, exceptional persons, legislators, and other advocates, continual improvement has taken place in the range of students being served; the quality of the personnel providing special education and related services, and the methodology, curriculum, and technology for educating exceptional children. For most exceptional students of school age, special educational opportunity is now a right and progress continues in guaranteeing this most fundamental right for all students who need it. Fairness in the process of making appropriate educational decisions, given the opportunity for involvement of all parties, exists in most situations and resources, although still not sufficient, have improved. Thus, while the history of special education is long and progress has been continual, our achievements of the past two decades stand as a testament to the commitment of advocates, both professional and lay, to our common primary mission.

As we look to the end of the twentieth century, it is time to examine existing goals and to set new ones so that the achievement of our elusive mission of quality instruction for the exceptional learners of our schools is uninterrupted. We recognize that full achievement of our mission will always be elusive because the nature of our society, needs of our students, role of our education systems, and knowledge and technology available to teach children are in a constant state of change. Thus, special education must constantly adapt in its pursuit of quality instruction.

As the year 2000 approaches, a number of significant demographic, educational, social and technological trends emerge that will impinge upon our assumptions about the future.

- A significantly greater proportion of tomorrow's children and youth will be students who are educationally at risk because they will have grown up in poverty and will be racially, ethnically, and linguistically diverse.

- Increased educational performance requirements and reduced curricular and instruction alternatives are producing educational systems with fewer options for meeting unique learning needs.

- Retirement of special educators will significantly impact the profession in all sectors, while at the same time recruitment of talent into the profession will be difficult, especially when viewed in context with the increased demands for greater standards for entry into the profession and stricter accountability for continued authority to practice.

- Increased employment opportunities in special education will open up greater career options for special education professionals.

- The "graying out" of society will provide greater employment opportunities for all youth.

- New technologies will significantly improve the ability to deliver effective instruction in school, at home, and on the job.

Patrick Henry, in an address in 1775, noted, "I have but one lamp by which my feet are guided, and that is the lamp of experience. I know of no way of judging of the future, but by the past." As special educators, our strength in meeting the challenges of the future lies in the beliefs we have developed from our past experiences.

We believe that:

- Much of the future exists in the present and that we must continually identify best practices and integrate them into general practice.

- Exceptional students, their families, and special educators are first and foremost human beings whose rich diversity of culture, race, ethnicity, religion, geography, economic and social condition, language and gender must be addressed with respect.

- Difference of thought and experience among special educators is the strength of our profession, but such differences must be expressed with professional respect for each other.

- While consumer, governmental, and public participation in the assurance of rights and the general delivery of services is an essential aspect of special education, the ethics and standards for quality practice and for preparation and eligibility to practice the profession should be established by the profession.

- Special educators must, in addition to practicing within governmental and professional policies, have the freedom to practice their profession without undue constraint.

- Recognizing that special education is only part of an exceptional child's total education, we believe that there must exist effective partnerships among special educators, other educators, parents, and members of the community that are constructive and consistent with appropriate roles and functions.

CEC's Goals for Special Education

I. CEC believes that actions on behalf of exceptional students should enhance the **provision of quality instruction** to these students.

We recognize that the primary providers of special education instruction are special education and related services personnel.

> "The concept of assessment should change from emphasis on standardizing procedures for [special education] eligibility to matching educational problems in

teaching and learning to effective interventions delivered in settings which are proximal to the problems." (Semmel)

In order for such personnel to function effectively, they must have appropriate professional preparation, opportunities for continuing education, instructional resources, appropriate environments to practice, and administrative support. We also recognize that families play an important role in the instruction of exceptional children and the positive interaction between special educators and the families of the children they serve is an essential part of quality instruction. For these reasons we believe that special education policies and methods of resource allocation should be constantly evaluated to assure that they enhance the ability of special educators, related services personnel, and parents of all social strata and ethnicity to provide quality instruction.

* * *

"...research knowledge is like crude oil out of the ground, an extremely valuable product, but you would not want to put it directly in your car... [it must be] refined and transformed to meet specific purposes before its true value is realized." (Gallagher)

"...all teachers feel that research needs to be brought into the real world of education - the classroom..." (Barringer)

"...we must do a more efficient job of disseminating useful [research] information..." (McGlothlin)

II. CEC believes that there must be sustained, systematic, **special education research** in the areas of curriculum, methodology and policy that are dedicated to the ongoing improvement of quality instruction.

The development of new knowledge is essential to the continual improvement of professional practice. While professionals gain new knowledge through their daily practice, it is through systematic research that we can determine what is effective and under what conditions. We believe there should be centers that are adequately supported where such research can be conducted and where researchers can be appropriately trained. Such centers should have linkage to schools and practicing professionals in various settings to assure that research is conducted in environments and under conditions comparable to those in which professionals practice and to assist researchers in translating the research into usable information. Since inquiry and evaluation are an essential part of professional practice, special education professionals should be engaged individually or collectively in appropriate research to improve their knowledge and that of the field.

"...preparation [for transition] will dominate the next years of our lives." (Smith)

"Colleges, trade unions, vocational schools, and other post-secondary school options very often will not accept our handicapped graduates." (McGlothlin)

"...mentorship program for senior high [gifted] students...matched with a community member in business or university... to pursue advanced practical study." (Gillespie)

"...generation of adolescents and young adults [who] did not receive service at an earilier age, and as a result are today largely socially crippled and unemployable." (Gall)

* * *

III. CEC believes that communities must provide multifaceted services to accommodate the **life-long learning needs** of exceptional individuals and their families.

Learning is a life-long process. Many exceptional persons have unique learning needs and require specially designed instruction before and beyond the traditional school years. We believe that there must be available in communities a continuum of learning opportunities appropriate for exceptional persons from birth through adult life. New technologies increase the capacity for exceptional persons to be independent learners. We believe, therefore, that exceptional persons must have available to them the appropriate technology and instructional materials that will enhance their capacity as learners. We recognize that exceptional persons live within a variety of social groups and believe there must be ongoing education of the community including friends, families, ethnic groups, businesses, and community organizations regarding attitudes, information about exceptionality, and ways of interacting with and accommodating exceptional persons.

"...microcomputer allocation has been less than equitable in the schools, with age, sex and disability factors all operating to reinforce access by the privileged." (Gall)

"During the past ten years, special education has gathered the evidence to...shift from a deficit model to a data-based instructional model." (McGlothlin)

* * *

IV. CEC believes that meaningful, skill, and language appropriate **curriculum and effective instruction** must be available to exceptional individuals.

Most exceptional learners require alterations in the methods of teaching from that normally provided to students in general. Many exceptional students also require modifications or significant alterations in curriculum. We believe that significantly greater attention must be given to analyzing curricular needs, developing guidelines for appropriate curriculum, helping students set life-long learning goals, and determining and assuring the provision of appropriate environments and resources necessary for effective curriculum delivery. We believe that there must be ongoing research in determining effective methods and practices for teaching exceptional students and ongoing training and evaluation to assure that special education practitioners are utilizing the most current professionally recognized knowledge in this regard. Technology offers tremendous opportunity to enhance special educators' capacity to effectively deliver diversified curriculum. We believe that such technology must be available to special educators. Exceptional learners are entitled to appropriate recognition for their achievements. We believe that recognition of educational achievement should be based on completion of individually determined appropriate curriculum and that students should be recognized for their achievements in an equitable manner.

"More handicapped students would master essential "regular" objectives if they had additional time to devote to them that they're now spending on non-essential objectives. Curriculum analysis could solve this problem." (McGlothlin)

"...general shift toward broader educational reform has resulted in a rather uncritical view of curriculum for handicapped youth in the schools." (Semmel)

* * *

V. CEC believes that an adequate supply of **appropriately prepared diversified personnel** must be available to provide special education services to exceptional persons and only persons who are professionally qualified should be eligible to practice.

"...in some areas 30% of special education personnel...[are] inadequately prepared and have emergency certification to teach the handicapped." (Schrag)

"Those most responsible for delivery of services - public schools - have been given least control over teacher training."

"Perhaps greater differentiation of teacher roles...teacher technicians...subject matter leaders...personal development teachers... curriculum specialists... special education... learning specialists [might attract teachers to stay]." (Cegelka)

Special education is facing a crisis of growing demand for services and a declining capacity to assure the availability of qualified personnel to meet the demand at the direct student service level, administration, and higher education. No greater challenge faces our field. We therefore support the concept of differentiated staffing in special education and call for the development of a system that delineates differentiated staff functions based on educational preparation, experience, and demonstrated competencies. We believe that all special education professionals, including administrators and higher education personnel, must meet professionally recognized national standards before being eligible to practice. It is essential that while there must be increased efforts, including appropriate incentives, to recruit talented individuals into the special education profession, particular effort must be given to attracting persons who are racially and ethnically diverse and who are disabled. Further, the profession must assure that personnel preparation programs are in adequate supply and meet professionally recognized standards. Recognizing that special education is part of a larger education system, we believe that all educators should have appropriate training relating to exceptional persons in order to practice their profession.

* * *

VI. CEC believes that **specially designed instruction,** provided by persons qualified to provide such instruction, should be available **to students in schools regardless of whether the student has a recognized exceptionality**.

We recognize that special educators have instructional skills that could benefit children who are not necessarily etiologically handicapped, gifted or talented. We believe that services of special educators should be available to students based on need for the services rather than traditional eligibility criteria. We believe that the varying subsystems of education must work collaboratively to achieve this goal, assuring the rights of students and preserving the integrity of varying educational resources.

"Increasing debates are occurring within state education agencies, state boards of education, and state legislatures about the extension of special education services who are not handicapped but simply experiencing academic difficulties..." (Schrag)

"The lines between those students failing in school and those who are handicapped are becoming increasingly unclear." (Schrag)

"Bridge the gap and go that extra mile to serve children." (Smith)

"Critical importance of teachers in regard to the decision to refer a pupil and subsequent eligibility decision for special education." (Semmel)

"...given the percentage of the [future] population represented by ethnic and language minorities, for all teachers, including special education teachers, to demonstrate competence in bilingual education instructional procedures or, at a minimum, English as a second language instructional techniques." (Yates)

"...school based teams do not necessarily decrease the flow of learning handicapped pupils... encourage more efficient allocation of resources ...and a more rationale basis for requesting additional fiscal support." (Semmel)

"The more special education services, research, and training are perceived as contributing to the general societal welfare, rather than to a more narrow unique population, the stronger will be the position for special education in the future." (Yates)

"Competition for money - survival - is from within, and the process of competing creates divisions within the organizations. Handicapped and gifted children are in perpetual jeopardy. With no increase in state funding, shrinking federal assistance, push to increase teachers' salaries, higher utilities, continuing problem seems clear. Special education must be able to provide cost effective services..." (McGlothlin)

"...the quality of an educational institution must be judged on its holding power not just on the assessment of its graduates." (McGlothlin)

* * *

VII. CEC believes that **fiscal and other resources must be adequate** to make effective special education practice possible.

The future suggests greater demands for the services of special educators and greater expectations for effectiveness. We support and encourage these demands and expectations. However, without quality research and development, an adequate supply of qualified personnel and professionally recognized practice conditions (including class and case size, environment, and instructional resources) they can not be met. We believe that special education funding and management systems must be reevaluated to determine their appropriateness to future quality service requirements. We believe that barriers to collaborative funding among various educational programs and among various agencies must be reduced to maximize utilization of resources to meet student and professional needs. We believe that professionals should only practice in a professionally acceptable manner and thus should refrain from participating in situations where the conditions are not adequate to assure effective practice if efforts to improve such conditions have not been successful.

* * *

VIII. CEC believes that professional and lay advocates must work to achieve **quality educational opportunity for all students**.

Just as isolationism is no longer a viable policy for nations, advocacy for special education alone is not a realistic approach for the future. We believe we must become a force in shaping the conditions that effect the development of children, the conditions under which children live, and the world in which our graduates must prosper. While we must help handicapped students, we must also work to eradicate the conditions that create disability. While we must educate to the fullest those students who are gifted and talented, we must also strive to prevent the loss of giftedness and talentedness in children whose environmental conditions stifle such development. While we must focus on curriculum and methodology, we must concern ourselves with the society in which our students live. While we must focus on life preparation for our students, we must strive to assure that the society they enter will afford them the opportunity to live the life for which they have been prepared. As we increasingly prepare our students to live in society, then we too must become more of a participant in that society, joining with those dedicated to make a better future for all students.

"Special educators must be concerned with policy issues which are directly related to the effective instruction of all difficult-to-teach children...maintaining a commitment within a unified general education community to the objective of achieving a free and appropriate education for all children...assuring effective instruction for all pupils." (Semmel)

"Demographic information indicates that this country's population is growing older and less White. Its children are less secure financially. Public school students are increasingly likely to be minority, and to come from homes where a language other than English is spoken." (Yates)

The mission we set for the future, while overwhelming in its scope, is no greater challenge than that faced by those who brought us to this point in history. Perhaps the words of the poet Randall Jeffers offers the guidance we need as we work together to make tomorrow a time of greater opportunity for the exceptional persons we serve.

> "Lend me the stone strength of the past and I will lend you the wings of the future."

This paper was prepared by:

Frederick J. Weintraub
Assistant Executive Director
Department of Governmental Relations
The Council for Exceptional Children

About the Authors

Eleven distinguished professionals were invited to present papers on The Future of Special Education during a special symposium in May of 1986. Each of these authors represented a different perspective from our special education community. Selected portions from their papers have been quoted in **Goals for the Future of Special Education**.

CEC extends its gratitude to these professionals for their commitment to the brightest future possible for exceptional children and youth.

Mary-Dean Barringer is a demonstration/resource teacher employed by the Wayne County Intermediate School District in Michigan. Since 1976, she has worked with students categorized as "low-incidence" populations, particularly the severely and profoundly handicapped. Ms. Barringer has created several activity-oriented publications for staff and parents of these students. In addition to teaching responsibilities, Mary-Dean has done extensive staff development through educational and mental health agencies. The Council for Exceptional Children presented her with the first Clarissa Hug Teacher of the Year Award in 1985.

Patricia T. Cegelka is currently a professor in special education and dividing her time between two administrative positions at San Diego State University. She is Chairperson of the Department of Special Education and Associate Dean in the College of Education. From 1977-82, Dr. Cegelka served as editor of Teacher Education and Special Education; she is also a past president of CEC's Teacher Education Division. Her current research interest is bilingual special education.

Robert S. Gall is currently dividing his time between two professional assignments. He is a professor of education at the University of Lethbridge, where he teaches special education and educational psychology, and he is a consultant to the Government of Alberta, Department of Education Response Center, where he is establishing a major electronic networking and information delivery system for the province. Dr. Gall also serves as the President of CEC's Technology and Media Division and as the Chairman of the CEC Task Force on Technology.

James J. Gallagher has been active in special education for a quarter of a century. He was a professor at the Institute for Research on Exceptional Children at the University of Illinois for thirteen years. From 1967 to 1970, he was the first chief of the Bureau of Education for the Handicapped in the U.S. Office of Education. He currently is the Director of the Frank Porter Graham Child Development Center at the University of North Carolina at Chapel Hill and is a Kenan Professor of Education at that institution. His writings have focused on research and training in the field of mental retardation, learning disabilities, and the gifted.

Diane Gillespie serves as the General Director of Special Education, Duval Public Schools, Jacksonville, Florida. She is past president of the Florida Federation. Prior to her current employment, Dr. Gillespie was on the staff of the governmental relations department at The Council for Exceptional Children.

Clive Hodder is Program Director of the Trillium School, Milton, Ontario, a residential demonstration school for severely learning disabled students. Prior to assuming this position in April, 1986, he was an education officer in the special education branch of the Ontario Ministry of Education with policy and curriculum development responsibilities in learning disabilities and autism. He is currently completing a doctoral thesis on special education legislation in Ontario entitled Bill 82: A Case Study of Policy Development in Special Education.

Jane McGlothlin is the Director of Special Programs for the Kyrene School District in Tempe, Arizona. Prior to her current position, she was a member of the special education faculty at Arizona State University. She served as the secretary and legislation chair for CEC's Council for Children with Behavioral Disorders. Her teaching background is with behaviorally disordered children from preschool through high school levels.

Judy Schrag is currently Assistant Superintendent for Special Services and Professional Programs, Office of the Superintendent of Public Instruction, Washington State. Prior to coming to Washington in 1980, Judy was state director of special education for the State of Idaho. She has been a local director of special education, as well as a regular and special education teacher. She has been active in a number of national, regional, and state special education projects, committees, councils, and organizations. Judy is a past president, vice president, and treasurer of her local CEC chapter in Idaho. Dr. Schrag was also president of the National Association of State Directors of Special Education (NASDSE) in 1977-78 and a member of the NASDSE Board of Directors from 1975-79.

Melvyn I. Semmel is currently a professor of special education and Director of the Special Education Research Lab at the University of California at Santa Barbara. There, he is involved in policy analysis, special education research, effects of microcomputers on mildly handicapped students, and developmental disabilities. Previously at Indiana University at Bloomington, Dr. Semmel was a professor of special education and Director of The Center for Innovation in Teaching the Handicapped.

Patty McGill Smith moved to Washington, D.C. from Omaha, Nebraska with her two youngest daughters. Jane, age 16, who was diagnosed at 14 months of age, has a mental handicap and epilepsy. Ms. Smith's first career was at home, rearing seven children. Her second career began as staff coordinator of the Pilot Parents Program of the Greater Omaha Association of Retarded Citizens. In 1979, she coordinated statewide services for parents, siblings, advocates, and professionals working with parents at Meyers Children's Retardation Institute. In 1984, she became Deputy Director of the National Information Center for Handicapped Children and Youth.

James R. Yates is Associate Dean of the College of Education at the University of Texas at Austin. As both a special educator and educational administrator, he has been able to apply his scholarly interests in educational futures and technological forecasting to many of the major areas of concern for education in general and special education in particular. These scholarly interests have resulted in Dr. Yates authoring numerous publications associated with educational planning, educational futures, and the financing of education.

Current and Emerging Forces Impacting Special Education

James R. Yates
Associate Dean of the College of Education
University of Texas at Austin

CURRENT AND EMERGING FORCES IMPACTING SPECIAL EDUCATION

The year 2000 has held a certain fascination for the world of literature and the arts as evidenced by movies, books, and other media which have focused upon the "science fiction" aspects of the 21st century. However for educators, the year 2000 is a fast approaching reality, as students currently entering kindergarten will be graduating from high school that year. Educators need to begin studying the future. However, some think that the study of the future is mystical, error prone, and equated with gazing into the crystal ball or soothsaying. In reality, the study of the future can be systematic, analytical, and serve as a link between today's world and tomorrow's goals and activities. Quite powerful forecasting tools have been developed in recent years. Planners have utilized such forecasting tools as the window through which the range of possible futures can be viewed. As such, forecasting allows us to determine what we wish to stabilize, what we wish to change, what we wish to inhibit, and what we wish to facilitate.

Most educational planning has historically occurred in very short one-, three- or five-year cycles. Futurists suggest that there are three primary timeframes for studying the future. Short-range forecasts fall into the one- to five-year timeframe. Six- to ten-year periods are mid-range futures and more long-term forecasts are of eleven to twenty years. Short-range forecasts tend to be more accurate, but conversely, are significantly restrained relative to the ability to impact or alter the trends or directions of that short term. For example, some states have legislatures which meet biannually. Once that legislature has set a budget for a two-year timeframe, it is relatively difficult for planners to appreciably alter the financial resources which would be available within that short-term future. However, futurists would suggest that mid-range forecasts provide a more ideal timeframe for planning, decision-making, and focusing for the future. Mid-range forecasts are not so close at hand that little can be done to alter the futures, yet not so distant that large numbers of variables which impact those futures are unknown or uncontrollable. Long-range forecasts provide educators with enriching and mind-expanding opportunities to explore what might be, rather than what will be. Given the rapidly changing environment of education, today's educational leaders need access to technologies which help produce and focus the short-, mid- and long-range futures.

Futurists and technological forecasters would suggest that there are two primary methods of studying the future - exploratory and normative methodologies. Exploratory methodologies make assumptions about the past and present through systematic procedures which lead planners from the past or present into the future. This is a very common methodology utilized by economists and others as they analyze trends and project from those trends of past performance to future performance. Similarly, educators have utilized such techniques to project enrollment patterns, facilities construction needs and so forth.

Normative forecasting methodologies define alternative future states, and then work backward in systematic, logical steps to the present. Needs assessment exercises frequently used within education would be described as normative in that they define a particular desired goal or state.

The goal of this paper is to orient the reader to trends which are historical in the development of special education and apply the technological forecasting methodology of Force Field Analysis to develop futures for special education.

Within the history of education in this country, special education services represent a relatively short timeline. The delivery of education was not specifically defined within the constitution of this country, being a state's prerogative. The federal government's interest in education did not emerge until 1869 with the establishment of a federal unit associated with education. Public support for education through tax dollars was not legally upheld until 1892 in Kalamazoo, Michigan. It wasn't until 1953 that the federal government established an Office of Education within the Department of Health, Education and Welfare. Basically, the federal government had a single employee concerned with the provision of services for the handicapped until relatively modern times. For example in 1938, Elice Martins was the first federal official to be concerned with handicapped educational programs, followed by Jerry Rothstein in 1939, and in 1948, Romaine Mackie was installed as almost an institution associated with federal programming and services for the handicapped. Romaine Mackie operated within some very narrow government units, such as the science branch, with little evidence of interest in the handicapped. It was not until 1963 that President John F. Kennedy created a division of Handicapped and Youth, with Samuel Kirk serving as the first director. Through the activities of then Congressman Cary from New York in 1965, the Bureau for Education of the Handicapped was created by law. Only within immediate timeframes has the Office of Special Education and Rehabilitation Services been designated as a federal unit to develop and coordinate activities serving handicapped citizens and youth.

The timelines and activities which have resulted in provision of services to handicapped citizens and youth are significantly woven within the activities of parent and other advocacy groups. That is to say that there is little historical evidence that services and support of programs for the handicapped have developed spontaneously within either government or society. For example, it is more than mere coincidence that federal activities associated with programs for the handicapped coincide with the creation and emergence of the Association for Retarded Children and the ascent to the Presidency of the United States of an individual who had a mentally retarded sibling. The emergence of specific law and policy for the handicapped is highly correlated with the development of strength and the emergent visibility of the Council for Exceptional Children as a professional organization.

Parallel to the emergence of formal organizations and politically powerful individuals who had direct interest in the handicapped was the emergence of litigation as a powerful tool placed in the hands of parents and other advocates. It should be remembered that it was not until the passage of the Elementary and Secondary Education Act in 1965, during the Lyndon Baines Johnson Administration, that broad, sweeping, legislative support was put into place, with accompanying federal appropriation for programs which serve the handicapped. Once such formal legislation was in place, it became both easier and more acceptable for legislation with significant specification, detail, and financial support to be formalized, i.e., P.L. 94-142.

Most special educators and many regular educators and parents are quite familiar with the growth of strength, power and influence in the history and trends of special education. However, futurists have defined the phenomenon of "system breaks" which have the ability to impact, influence and alter historical trends and forces. It can be contended that current and emerging trends and forces have the power and ability to appreciably alter the futures for special education and services for handicapped individuals. The last two decades have brought unprecedented change in the environment of education. Such change and the accompanying loss of stability have made it difficult for educational leaders to anticipate the major consequences of decisions. In recent times, educators have been bombarded by more than thirty national reports and many state reports which have tried to analyze, evaluate and make recommendations relative to the improvement of education. Interestingly enough, these major reports have for the most part ignored the future, and have focused their attention almost entirely either upon the present or the past. The reports have demonstrated a near fervor for a return to the "good old days." In addition, these reports have rarely made even the slightest reference to the educational needs of the handicapped. The reality is that schools mirror the various forces operating within our society. Society has changed in terms of populations, politics, priorities, crises, types of business and industry and so forth. Such changes in American society appear to be occurring more rapidly and covering shorter cycles of time than has been historically true. Schools reflect the same concerns and have experienced similar speed of change and changing cycles. It can be argued that these changing forces represent a system break for education and, in turn, special education.

FORCES

An analysis of the following forces provides special educators with information potentially useful in exercising greater control and influence over special education futures.

Demography*

Age

This country continues to grow older. With the median age having increased to approximately 32 years for White citizens, there are more than 30,000 people in this country who are over 100 years of age. Every week, 210 Americans

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***NOTE:** The author wishes to express appreciation and to acknowledge Harold L. "Bud" Hodgkinson for many of the conceptualizations and examples he has cited in various publications and speeches relative to demography and its effect upon the future state of the country and its educational system.

celebrate their 100th birthday. We have more than 2.2 million people over 85 years of age, and of significance, more than half of them voted in the 1980 presidential election. Obviously, this is a powerful and increasingly politically active group of citizens within this country. One need only look at the state of Florida, which currently has the highest percentage of people over 65, if one doubts the ability of this group to influence law and legislation. There is new legislation in Florida which triples the amount of time people have to walk across the street and cuts by one-third the time an automobile driver has to drive across the street.

Ethnicity

Not only is this country becoming older, but it is becoming less White. Black, Brown, and Asian citizens are increasing dramatically, with Hispanics representing the fastest growing population in this country (Austin American Statesman, 1986). The Census Bureau reported that as of March, 1985, the Hispanic population in the United States had increased some 16% in a little over five years, compared to the national population increase of 3.3%. Hispanics now represent 16.9 million people in the United States, an increase of approximately 2.3 million since the 1980 census. Currently there are approximately 247 Black mayors in the United States, and almost 6,000 Black elected officials. There are 3,000 elected Hispanic officials, which is quite amazing since 65% of the Hispanic population are too young to vote, and some 14% are legally ineligible to vote. The political power and influence of minorities is undeniable in a nation which, by the year 2000, will have 260 million people, one of every three of whom will be either Black, Hispanic, or Asian-American.

Language Minorities

There is a dramatic and clearly defined increase in the number of language minorities in this country (Omark & Erickson, 1983). There are fourteen or fifteen major language groups whose children, in 1980, comprised almost 2,400,000 students between the ages of five and fourteen. However, of significance is the fact that this number of language minority students is projected to increase by approximately one-third by the year 2000. By far, the largest language minority group is Spanish-speaking, with more than two-thirds of the entire language minority population being represented by Spanish speakers. The number of Spanish speakers in this country is projected to increase some 48% between 1980 and the year 2000, numbering more than 22 million persons by the year 2000 (Macias, 1985).

Youth

Not only is this country growing older and becoming less White, but the odds are significantly greater that its youth will be members of ethnic minority groups. In composite, it is a more frequent phenomenon for ethnic minorities to comprise the majority of public school students. For example, in the state of Texas, 51% of kindergarten students are Hispanic, with the majority of elementary age students being minority. Before one hastens to associate these demographic shifts with a specific geographic area, e.g., the Southwest, one must remember that Chicago represents the fifth largest Hispanic population center in the United States. It should also be noted that even today more than 50% of the population of the United States reside east of the Mississippi River.

These shifts in the ethnic membership of public school populations are not a temporary bubble in the population stream, but rather the emerging future. As mentioned previously, the typical White person in this country is 32 years of age. The American Black is typically 25; the American Hispanic is 22 years of age. It is a rather simple task to determine who will have the most children within the next fifteen years. The White population is basically leveling in terms of women of child-bearing age, while the population of Hispanic women of child-bearing age is dramatically increasing. A new baby boom will occur, but this time it will be Hispanic (Hodgkinson, 1985).

Environmental Factors

Major changes have also taken place in terms of the environment for children born in this country. For every 100 children born today, twelve are born out of wedlock, forty are born to parents who divorce before the child is 18, five are born to parents who separate, two are born to parents one of whom will die before the child reaches 18, and forty-one reach 18 having been raised in a "normal" family environment.

Of children born out of wedlock, 50% are born to teen-age mothers. Almost unbelievably, very young mothers - thirteen and fourteen years of age - exist. In fact, every day in America, 40 teen-age girls give birth to their third child. Teen-age mothers tend to give birth to children who are premature, of low birth weight, with a significantly higher incidence of major health problems, and in turn, dramatically increased likelihood of having major handicaps. This group of high risk children is entering the educational system in rapidly increasing numbers.

Socio-economic status remains a consistent correlate of school learning and learning problems. The Congressional Budget Office (1984) notes that approximately 22% of children under 17 years of age live in poverty and that this number is increasing. Given the corresponding increase in the number of minority children of school age, the known disparity in income levels for minorities and Whites, and continued differentiation and representation of minorities in professional and other high income earning activities, it can be conclusively projected that the number of poor children in school will dramatically increase in both real, as well as percentage representation, between now and the year 2000.

Drop-Outs

There are significant difficulties in obtaining reliable data relative to drop-outs. Schools and other agencies have little motivation to collect such data, because these data provide indirect, if not direct, evidence of the failure of the system to serve segments of its population. Once a youngster disappears, s/he is of little interest to the organization. However, the best data appear to indicate that approximately 14% of White students drop out, while one-fourth of Black students drop out, and more than 40% of Hispanic students do not complete high school (Boyer, 1983). It is also relatively clear that there are fairly significant regional variations in these figures, with some states, such as Minnesota, maintaining better than 86% of their students, while other states, such as Mississippi, maintain barely over 60% of their students.

In summary, demographic information indicates that this country's population is growing older and less White. Its children are less secure financially. Public school students are increasingly likely to be minority, and to come from homes where a language other than English is spoken.

Implications for Special Education

There is a clear difference between the emerging demographic characteristics of this country and the demography of special education as a discipline and in its professional organizations. Special education and its leadership are, at this time, most likely to be White, English-speaking, with special education research, training and professional development activities generally focused upon areas unrelated to the emerging demographic characteristics of the student population in this country. Issues such as ethnicity, minority status, bilingual education, second language acquisition, non-biased assessment, socio-economic status, and so forth are generally perceived by the special education profession as unrelated to special education as a discipline. The configurations of special education and its professional organizations are not greatly incompatible with the past, but are quite discrepant with the emerging future.

Demographic variables would appear to suggest the possibility that there will be an expansion of groups eligible for special education services. Some examples of this emerging population would be victims of child abuse, juvenile delinquents, increased numbers of children situationally handicapped due to low socio-economic status, children handicapped through effects of chemical abuse by their parents, and children both younger and older than the traditional age categories currently served by special education. This expanded group of individuals with problems which inhibit their normal progression in the educational system may cause the system to respond in its historical fashion of "dumping" all children who don't fit the institutional norm into special education. These effects may result in special education continuing the current trend of serving larger and larger numbers of mildly handicapped.

Other variables such as the cost of special education and the general reduction of resources available in education may, in fact, precipitate a reaction formation to this expanded population for special education services. Such a reaction formation may cause the pendulum to swing back toward services for the more severely handicapped through a more careful delineation, primarily through policy and procedure of eligibility criteria, in order to assure that only the most demonstrable and defined handicapped individual is provided the unique specialized services of special education.

A number of courses of action appear rather obvious; however, they represent significant and difficult changes to be made within the discipline and the profession. For example, institutions of higher education, as well as others who provide training to special educators, must initiate training programs such as bilingual special education. Such programs exist today in relatively small numbers and with small training capacity. Training programs for regular educators, as well as special educators, must begin to include content associated with second language acquisition, English as a second language instruction, bilingual education, cultural and linguistic uniqueness of student populations, and so forth. If they do not, there is less likelihood that appropriate student referral to special education will occur (Garcia & Yates, 1986).

There are other less obvious incompatibilities within the special education discipline and profession. For example, the name "Council for Exceptional Children" creates some evidence of incompatibility with the demography. That is to say, in the future, special education will be faced with an increase in the amount of activity and services, research, etc. devoted to and related to adults and older citizens. Therefore, the word "Children," as part of the title of the major special education professional organization, becomes less appropriate as this country grows older.

As it becomes more acceptable for the older handicapped individual to receive special education services, special education professional organizations may need to reach out and interface with other non-traditional service agencies for special education, specifically geriatrically associated organizations. This outreach effort will, of course, create the complexity of linkages and demand for appropriate "boundary spanners" to link the organizations. The identification and development of such boundary spanners will, in itself, call for unique demands on the special education profession.

Currently, parent and advocacy groups are no better prepared or configured than special education for the emerging changes and shifts in demography. There are fewer Whites of child-bearing age, and as the population becomes more culturally and linguistically diverse, special education parent organizations and advocacy groups must begin to make systemic adjustments in order to remain visible, viable and influential. Just as special education has historically been powerful in the formulation of legislation and utilization of the judicial system to accomplish aims and goals for the handicapped, it must now, as a discipline and profession, recognize the growing political power of the Hispanic, the Black, the culturally and linguistically different populations in this country.

Recruitment efforts within special education at the level of pre-service, continuing education, as well as at the level of practice, must focus on bringing larger numbers of language and ethnic minority individuals into the profession in order to provide appropriate practitioner/researcher/trainer knowledge, role models, and sufficient manpower to address the clearly changing demography of special education futures.

These efforts to recruit appropriate individuals to serve the emerging ethnic and language minority population may call for specific review of areas such as certification or licensing requirements as a special educator. In the future it may be appropriate, given the percentage of the population represented by ethnic and language minorities, for all teachers, including special education teachers, to demonstrate competence in bilingual education instructional procedures or, at a minimum, English as a second language instructional techniques. Since the majority of educators are, in fact, Anglo, monolingual speakers of English, and the composition of the teaching force will not change as rapidly as the ethnic and language composition of the students to be served, there are clear implications for continuing education or in-service training. Specifically, the population of special educators who are currently mostly White must be provided with appropriate training to produce understanding of the educational and learning implications of cultural, language, ethnic, and learning style differences in the emerging student population. One needs only to review the range of typical training agenda provided special educators to recognize that topics ordinarily considered as appropriate in training are, in fact, dramatically different from what is being suggested to prepare the special educator to serve the emerging student population.

In summary, the political organization, training, research and scholarly activities within special education as a discipline and a profession must be alerted and adapted to the powerful and long-term demographic changes occurring within this country.

Economy and Finance

One of the primary motivations for the rash of educational reform has been the need of the United States to be more competitive with international markets in the age of high technology. This is particularly clear in certain reports (National Commission on Excellence in Education, 1983; National Science Board Commission on Pre-College Education in Mathematics, Science and Technology, 1983; Task Force on Education for Economic Growth, 1983). This international emphasis seems understandable in light of the growing world economy in which very few products, even those carrying "American" images, are truly and uniquely manufactured within the United States. For example, the IBM PC contains parts made by fourteen different nations (Hodgkinson, 1985).

There are several points to be made about the international focus of reform: 1) It may be short-sighted in that, rather than uniquely and specifically competing against other countries, the United States must be prepared to interface and cooperate in an economic sense with other nations. 2) Educational reform focusing upon that particular goal, i.e., to increase the ability of students to enter the U.S. work force and become more competitive with international markets, is not particularly appropriate for non-achieving students.

Specifically, most of the educational reform activities center upon: a) implementation of some form of competency standard for advancement and graduation, requiring more specific courses in the "basics" of science, mathematics, English, and foreign language, and upgrading the performance standards acceptable in these "basic" subjects; b) increasing the length of the school day or the school year in an effort to provide more "time on task;" c) improving instructional materials available to students primarily by making them more demanding or difficult; d) increasing teachers' salaries through the mechanisms of merit pay and career ladders based on improved performance; and e) improving teacher training standards, licensing/certification (Levine, 1985). Upon analysis, these major reform procedures and requirements seem only marginally related to, or supportive of, under-achieving students. In fact, in many ways they represent additional impediments, at best, and are potentially harmful to such students, as they serve to discourage and to prevent, in some cases, the educationally disadvantaged from progressing through the system.

On the surface, such reforms appear to assure that all those who progress through the system will possess certain skills and competencies which, no doubt, would be a strong advantage to the employer and work force organizations. For example, AT&T spends some $6 million per year teaching basic literacy skills to its employees. "Work-ready high school graduates just don't exist." (Snyder, 1986). But for the student who is not progressing in the system, who may be two or three years retarded in terms of educational achievement levels in comparison to age, it is unlikely that s/he will "catch up" under these reform standards. In fact, one conclusion may be that these students simply grow discouraged and become a drop-out statistic.

Not only are we faced with the phenomenon of reduction of the work force through increased numbers of drop-outs, but the young adult population, based upon the ages of those already in the system, will decline 2.5-3% per year until 1996, further creating a shortage of early or initial entry level workers (Snyder, 1986.)

In those instances where the reform has centered upon remediation, the remediation component has oftentimes been an afterthought, addition, and/or considered relatively minor in terms of the reform. As a result, many of the programs to support under-achieving students have been under-funded. In other instances, these measures have actually created the opportunity for further disenfranchisement and/or the creation of a unique labeling system which develops a parallel educational structure for under-achievers, similar to the special education system for handicapped youth, but without quite the extent of formalization and resource support. It appears that without the presence of adequate compensatory and remedial systems to enhance and raise the performance of those students not progressing in the system, it is very unlikely that many will obtain the job-related skills needed to meet the implicit, if not fully articulated, goal to produce the student who becomes the effective worker within the United States, capable of competing successfully within international markets.

Reform efforts related to funding of educational programs and services have been developed primarily within a cost-effectiveness framework, i.e., current expenditures buying the best or most efficient service within the immediate temporal framework. The reform movement has produced little discussion relative to the long-term or cost benefit questions associated with expenditures in education. Specifically, much of the reform centers upon the secondary level student, with very little centering on investments in educational problems of students in the earliest grades. Without major financial support and significant program development to address early deficiencies, it seems reasonable to conclude that, regardless of how cost-effective the immediate implementation of reform may be, the long-term cost benefit results will be found wanting. The evidence is exceedingly clear that it is far more efficient to place resources into the early compensation and remediation of students than to try to effect change in student performance in the latter grades or adult life. Given the results of long-term studies of the efficacy of intervention programs such as Headstart, it is clear that such programs effect long-term differences in performance for children of "poverty" (Department of Health, Education and Welfare, 1979). However, only some 400,000 students are participants in Headstart, while at least 3,000,000 are eligible. The cost of full-scale early intervention programs is substantial and would, no doubt, require phasing. However, the greater cost savings associated with such early intervention are substantial across a number of fronts; educational expenditures, business/industry training costs, social costs of welfare, prison and security costs, loss of tax revenues and so forth.

Levine (1985) has indicated that if all males in the 25-34 age group had completed high school in 1969, they would have earned $237 billion in additional incomes over their lifetimes, and that federal and state governments would have acquired an additional $71 billion in tax revenues. In contrast, the cost of providing this additional level of education was estimated to be only about $40 billion. Each dollar of public investment for alleviating inadequate education yields about $6 in additional income to the affected population and almost $2 additional revenue to governmental treasuries. Of course, this says nothing about the societal savings, estimated to be somewhere in the $6 billion range, spent for public assistance and crime prevention. Taking the cost-effectiveness premise back to the preschool level, Levine estimates that for a single year, the present value of preschool exceeds the cost by almost $29,000 per student, a cost-effectiveness ratio of $7 of benefit for each $1 of cost. Levine makes the point that there are few business investments which have such a large return. Yet, as we know, there is great reluctance to effect the policy decisions which allow such expenditures on early childhood education.

While deterioration of the labor force has been one specific concern of reform movements in education, its continued deterioration assures that increasing numbers of individuals in this country will continue to be disadvantaged, capable of being absorbed in only the lowest of job skill marketplaces, and/or remaining unemployed with significantly growing consumption of welfare resources. When one begins to tie the economic production variables to the demographic variables, it becomes clear that, without intervention, this country is on the road to a two-tiered system of citizenship - a mostly White, well-educated, well-employed financially secure elite - a small segment of the population - and a much larger under-educated, under-employed, limited economic-contributing, mainly ethnic minority population. In a democratic society, such a discrepancy between the tiers carries with it significant implications. When the largest segment of the population is poorly educated, and therefore unable to become fully knowledgeable, informed participants in the democratic process, there is potential for failure of the system of government inherent in this country's constitution and history.

A two-tiered society in which large segments are uneducated, unemployable, or minimally employed creates the necessity for such individuals to seek other means of support and compensation. The evidence appears clear that the major means of obtaining such additional support is criminal activity, for example, illegal activities related to drugs and street crime. As the discrepancy in the two tiers of society grows in the coming years, one could anticipate more violent crime, and more crime associated with "taking from the rich" as a means of compensation and survival. Should one question the feasibility of such a dual-tiered society, recent evidence is clear that non-White unemployment rates have more than doubled those of Whites (Monthly Labor Review, 1984), with the unemployment rate for Blacks between sixteen and nineteen years of age being in the 50% range. The median income of non-Whites is substantially below that of Whites, and the expected lifetime earnings of high school drop-outs is about one-third less than those of students who graduate and less than half the amount of those who graduate from college (U.S. Dept. of Commerce, 1983a, 1983b).

The two-tiered system with its elites and non-elites provides the fertile bed for social unrest and, in fact, revolution. While these consequences appear to be drastic and perhaps unfathomable within American society, when one considers the changing demography of this country and the lack of educational attainment of certain segments of the population, it becomes believable and, in turn, anticipatory of the possible drastic consequences in the futures of this country. There appear to be few inducements to prevent the resentment, conflict, and ensuing opportunity for social and political unrest.

The two-tiered society will require increased costs of public services through additional demand for security, with pressure on the criminal justice and welfare systems. While these consequences would be severe enough within themselves, with the increasing segment of the population falling within the "lower" tier, there is the additional serious consequence of loss of tax revenues. Unemployed individuals turning to the streets for survival and for income do not produce tax revenues, yet their activities increase demands upon the public tax dollar for services. One could anticipate, as the increased demand for services develops and as tax revenues erode, that the "tax-paying" segment of society may resist the level of increases necessary to sustain the system, further enhancing the prospects of social and political upheaval under the structure of a two-tiered society.

Yet another effect of the two-tiered society is that the jobs available between now and the year 2000 will not be in the "high tech" arena. There will be a dramatic percentage of increase in "high tech" jobs, but a relatively small net increase in actual positions. The implication is that most jobs of the future will call for individuals who have "high school equivalency or vocational technical equivalency" levels of training. The reality is, given the current and emerging proficiency of the educational system to address its largest population segment, i.e., the minority and disadvantaged student, increasing portions of our future labor force will be under-educated for the available jobs. On occasion, all of us feel frustrated with the lack of competence and proficiency of employees providing services and skills, from incorrect change or merchandise on daily shopping trips, to errors in hotel registration. These experiences serve as the forerunner of the level of frustration, waste, time and economic inefficiencies which will result from a largely untrained, incompetent work force of the future.

For those states that are successful in retaining and graduating their students, there will be a net economic gain in terms of purchasing power of the economy, increased tax base, and a less tense social structure. However, those states which fail to increase retention and graduation rates will produce a growing proportion of the work force that does not repay the costs which have been incurred in the educational process. Such individuals are less mobile, and will become a continuous and life-long liability to the state (Hodgkinson, 1985).

The concept of the under-educated youth consuming more government and agency resources than are contributed becomes even more specific when other demographic variables are brought into force. This is a nation that is growing older. It has been amply demonstrated by Congress in the past five years that Social Security System efficacy is a serious concern. At one time, social security was a service delivery system based on approximately fifteen or sixteen workers producing Social Security payments for each person withdrawing benefits. It was a system tied to periodic increases based on cost of living and other variables to help sustain those individuals who were on the retirement side of the system. All went well as long as there were a sufficient number of workers with salaries and income to appropriately sustain the system. However, the ratio of persons supporting to persons withdrawing resources has and will continue to decline. As the work force becomes less educated and earns less, the support generated by wage-earners will be insufficient to sustain the system. It becomes increasingly important, therefore, for the traditionally undereducated minorities and disadvantaged of America to get a good education, a good job, and become substantial contributors to the Social Security System.

Educators and others concerned with the educational system have continuously felt constrained by the lack of adequate resources to accomplish the defined goals of the enterprise. Rarely have there been sufficient resources, except in instances where resources have been inequitably distributed, i.e., wealthy school districts as opposed to poor school districts. As demands increase for the various educational human and social services, there will be increased competition and politicalization of the systems. Welfare systems will be very competitive with educational systems for the diminishing available tax dollar. Not only will there be competition between human service delivery agencies, but within the educational enterprise. The competition between regular education, special education, vocational education, bilingual education, and other components of the educational enterprise will become more intense.

Additionally, competition between the various levels of the enterprise will increase such that higher education will be more competitive with community colleges, as well as public elementary and secondary schools, for the declining available tax dollar. Although higher education is clearly dependent upon other levels of the system for its own success, this has not generally been recognized. As resources become more difficult to obtain, various levels of the system, based on their need to maintain and control their own territory, will have a diminished recognition of the need for cooperation between the various levels. For example, even today, if one discusses issues such as the quality of students in higher education with professors in the "disciplines," they are rarely cognizant of the dependence of the quality of the student upon such variables as high quality teachers at the elementary and secondary school levels. Rare is the instance in which professors from the "disciplines" are supportive of colleges of education, and even more rare are the instances of financial generosity between the "disciplines" and the professional school or college of education. Yet, without high quality teachers being produced, the likelihood of increasing the quality of the student who arrives to obtain training in the "disciplines" is diminished.

It is generally perceived that educational training is directly related to job preparation. However, these views are related almost exclusively to current or existing jobs. The future defines a variety of different jobs; many do not even exist today, much less have formalized preparation programs associated with them. If the educational enterprise is designed to produce workers for existing jobs, the rapid change in job requirements for the future will make the system less efficient, and increase the training burden of the business/industrial complex. For example, in the "high tech" labor market, it has been suggested that the best trained engineer has relevant knowledge for only about three to five years, and then must have extensive re-training. The fact that AT&T trains more than 14,000 of its workers at a cost of over $6 million per year is but one example of the incongruity between formal education and job-related training. It has been estimated that 50 million workers are in some way associated with government, and at least half of them engage in some form of annual education or training. The military, more than four million strong, reflects a known element of continuing training. Even the United Way engages more than 7,000 of its employees in management training centers every year, using its own facilities and instructional staff. It is estimated that more than 46 million adults are engaged in education beyond the high school level, and yet only 12 million are, in fact, enrolled in colleges and universities. Hodgkinson (1985) indicates that there are over 200 degrees being offered by colleges and corporations working together. However, many corporations such as Wang and Motorola now independently offer their own degree. The point of citing these statistics is that formal institutions of education find themselves under growing competition and such competition will increase in the future.

Implications for Special Education

As the educational system responds to external and internal pressures for competency assessment of professional educators, there will be growing discontinuity between these demands and the special education system. General literacy testing is equally relevant to special educators and regular educators alike, but if the testing movement continues in the direction of relating testing to perceived performance on the job, special education professionals will experience difficulties. For example, the teacher competencies associated with producing higher achievement scores on standardized tests are totally inappropriate for the special educator working to train the moderately/severely retarded in self-care procedures.

Competency assessment as it applies to the special education student will also be dissonant to the competency assessment associated with regular education students. This particular debate already has a fairly lengthy history, having focused in the past on the issue of special education students receiving a diploma after completing their prescribed, I.E.P. goals and objectives. The question has been: are such students denied a high school diploma because they do not meet the traditional Carnegie units and/or have failed to meet the competency standards of graduation?

An obvious implication for diplomas and traditional high school graduation requirements is the fact that most jobs of the future will require lower entry level skills. Many of these lower entry level jobs have traditionally been available to the handicapped. However, as larger segments of the general population compete for these jobs, it may well be that the handicapped will not fare well in the competition. New and creative incentives will need to be developed for business and industry to remain concerned relative to the employment of the handicapped.

The relationship of competency assessment to the issue of economy and finance becomes rather clear when competency standards are tied to the career ladder, salary increases and the maintenance of the professional license or certificate to teach. Additionally, it has been proposed by more than one state to tie financing of school systems to increases in standardized achievement test scores of students. Clearly the relationship of money to such competency and/or standardized testing for students would severely strain the integrated relationship of special education to the rest of the system.

A parallel issue is the assumption being made by the educational reform movements that reform should precipitate enhanced "college preparatory" performance of students. These assumptions are clearly incompatible with many of the goal and curriculum assumptions of special education. Such issues have the ability to further alienate, isolate, or to keep the complementary special education enterprise outside of the primary discipline. The competency testing of students correlates with a movement toward standardization of curriculum and instructional techniques. Such standardization is in opposition to the philosophical position of special education which recognizes and responds to individual differences. Special educators may find advocacy for the individual needs of the handicapped in direct opposition to the more powerful societal movement associated with a need for competence and standardization. A potential effect may be that special education finds imposed upon it by the larger, regular educational system, the requirement to become a tutorial or remedial program, with its specialized interventions related more to what is being taught at the student's ordinary grade level and the special education "content" required to focus upon the ordinary school curriculum, rather than the student's particular diagnosed handicapping need.

As schools become more sensitized to the student who is not progressing under "reform activities," there will be growing pressure for special education, with its historical image of "taking anyone" who doesn't succeed in the regular system, to become the general remedial arm of the educational system. These pressures run counter to other financial forces. For example, there is significant debate occurring relative to the increased number of students diagnosed as "learning disabled." The Condition of Education (1985) indicates a general decline in many of the "traditional" categories of handicapping condition, yet significant increases in the category of learning disabilities.

The increase in learning disabled, as well as the pressures that may be brought upon special education to serve broader segments of the population, will increase the costs of special education in general. These costs may result in decision-makers who control special education resources concluding that special education is too costly a service. One adjustment that such decision-makers may consider, as it would have less impact on the traditional system, would be to restrain resources for birth to three and beyond 21 years of age programs.

A correlate result may be the allocation of significantly greater resources to serving mildly handicapped with diminished resources available for severely handicapped. If resource allocation conflict results, there may be serious debate within special education relative to the appropriate allocation of resources for the handicapped. One response of the special education system may be a renewed emphasis upon pre-referral and referral strategies as a means of maintaining the integrity of the special education system. As a part of this renewed emphasis on pre-referral and referral, there could be increased effort to "make" regular education more accountable for students. An alternative scenario may be that as special education becomes pressed for resources, a general reaction formation will develop on the part of special educators to providing services to the larger number of students who are experiencing general failure in the regular educational system. This reaction could result in special education clustering its services mainly for the more severely handicapped.

As the number of adults minimally or unemployable increases, society may press the special education enterprise to serve as the human service delivery system for such adult "failures." Some evidence of this force is already emerging with the current emphasis by the federal government and some states for "transition" programs. One possible response of special education to these increased pressures to provide services to the "failures" of the regular education system may be to become more heavily integrated with the regular education system, and to facilitate the incorporation of many of the instructional, remedial, compensatory and other techniques, which are synonymous with special education services, into the regular education system.

As there is growing competition for limited resources, special education may not fare well. Just as education has historically been the financial "stepchild" relative to business and industry, special education has been the "stepchild" within the education system. Historically, special programs are the first place budget reductions occur. Due to the fact that special education has an extensive body of case law and legislation supporting its existence, it could be hypothesized that there will be increased political and legal confrontation as resources are re-negotiated for distribution. In times of plentiful resources, actual values are not of great consequence, but under conditions of financial exigency, true value positions are expressed. The historical experience of special educators provides evidence probably not paranoiac that special education will not fare well in the competition for resources under an environment of financial exigency and true value expression.

Extensive public resources will have to be expended in the future for areas of social welfare, security, and the criminal justice system. It is relatively clear, given the hierarchy of needs of human beings, that education in general, and certainly special education specifically, will not fare well in the competition with these units of society. Cities will be more concerned with greater police protection than the education of the handicapped.

Within institutions of higher education, special education is also the "stepchild," with the sciences and high technology "disciplines" garnering significantly greater percentages of higher education resources. Departments and units of special education have not generally been significantly valued within colleges and schools of education. As resources become more constrained, it could be envisioned that special education departments will, in fact, once again become parts of other general education components, such as curriculum and instruction or educational psychology. There is a growing trend within higher education institutions to collapse and combine a number of program areas into larger units, and this centralization process very frequently involves the special education department.

As society grows older, and as there is a growing untrained work force, it very well may be that larger percentages of special education resources will began to track these demographic changes. That is to say, special education resources may be re-allocated in larger percentages to adult programs and programs for remediation of the untrained work force. Also related to this issue is the fact that, as the general population grows older, there will be increased longevity of the handicapped citizen, demanding the continuation of services and support for the older handicapped. There is relatively little experience with such a population, thus creating the need for research and development focused on the most efficacious means of maintaining and enhancing the performance of the older handicapped individual.

In summary, the implications for special education related to the economy and finance would appear to suggest that special education, as it is currently organized, both within the elementary and secondary school structure, as well as in institutions of higher education, will not fare well in terms of retaining and/or acquiring resources in the near future. It very well may be that special education may maintain and control its destiny to a greater extent through the directed technique of becoming more highly integrated with the primary discipline of regular education, and increasing the regular education system's dependence upon the techniques, expertise, and vertical specialized knowledge inherent in the complementary discipline of special education. The more special education services, research, and training are perceived as contributing to the general societal welfare, rather than to a more narrow unique population, the stronger will be the position for special education in the future.

Professionalism

Currently large areas of the country are developing shortages in elementary and secondary teachers. These shortages are particularly acute in fields such as mathematics, science, special education, bilingual education and so forth. Insufficient numbers of history, English, government, and physical education teachers are also becoming commonplace. These shortages are reflective of changing circumstances. For example, some ten years ago approximately 25% of college freshmen indicated that they had intentions of pursuing a teaching career. However, in 1984-85, only 4% of entering college freshmen aspired to be teachers. Although elementary and secondary schools experienced a drop in the total number of youngsters enrolled during the past five years, the number of students enrolled in elementary schools is again on the rise, and will continue to increase throughout the next fifteen to twenty years. This enrollment increase further exacerbates the shortage of trained teachers. Further complicating the shortage is the fact that not only are fewer youth choosing education as a career, but colleges of education had their training capability diminished, and in some cases, almost eliminated during the difficult fiscal period of the 70's and early 80's. Reductions of 30-50% in the faculty staffs of colleges of education were not uncommon, even in the larger, better known institutions. Part of this reduction was the general value placed on teacher training by university administrators and policy-makers. Through this same period of fiscal difficulty, the training and research capabilities of science, engineering, mathematics, and so forth were enhanced, often at the expense of the professional college or school of education. The more immediate and visible effects are illustrated by the indication of the Superintendent of the Houston Independent School District that all of the teacher training institutions within the state of Texas (some 65 institutions of higher education) are not producing enough trained teachers to meet the teacher manpower needs of Houston ISD, much less of the state of Texas. Similar examples can be found throughout the United States.

Further complicating the production of teachers is the fact that through the last fifteen years, there have been dramatically increased opportunities for women and minorities to enter a wider variety of professions. Specifically, education has historically had its "pick" of the best and the brightest women and minorities to be trained as teachers. A bright, capable woman wishing to pursue a professional career was, by society's values and expectations, historically limited to a choice between teaching and a small number of other professional occupations, such as nursing. If a Black person were to enter a profession in the South or Southeast, unless it were teaching or the ministry, opportunities were severely limited. Fortunately for society, but unfortunately for education as a profession, the number of professional occupations available to women and minorities has increased dramatically.

Not only has the number wishing to enter education as a profession been reduced, but those making the decision to enter education are more and more frequently represented as the least capable in terms of intellectual achievement. SAT scores for those choosing education as a profession are generally 100-150 points below those of the general university populations, and as much as 300-400 points below the SAT scores of those entering engineering, computer science, etc. (Achilles, 1985).

Educational reform legislation and policy have very frequently, in some forty-six states, included a requirement for competency testing or assessment of teachers. These assessments have either identified or are anticipated to identify approximately 10% of the teaching work force who do not meet these standards and would therefore be removed from the profession, further amplifying the manpower shortage. A large number of states have included an additional component in their educational reform procedures - the assessment of individuals prior to entering the professional preparation sequence and/or assessment by standardized testing of such individuals upon completion of their training. The actual assessment process and/or its expectation have further reduced the number of individuals choosing and entering education as a profession.

One typical response made to the teacher shortage is to define alternative routes to licensing or certification. A frequently held concept within the business and professional community, as well as in some quarters of the educational community, is that individuals who possess at least a bachelor's degree in a discipline or subject taught in schools can be certified to teach with minimal or no training associated with pedagogy. In fact, the "profession of education" has been accused of precipitating the shortage of teachers by preventing individuals with bachelor's degrees in subject areas from obtaining teaching credentials. These perceptions are held despite evidence which indicates that there are not, in fact, "teeming hordes" of such individuals wishing to enter the classroom as teachers. Alternative certification programs have historically received rather small numbers of inquiry and an even fewer number who enter the available programs. Almost miniscule numbers endure and maintain their interest in teaching once they have been exposed to the actual processes, circumstances, and environments of teaching.

It is absolutely clear that a person must have knowledge of the subject matter or discipline in order to be an effective teacher. However, knowledge of subject matter is no assurance that the individual has the skills necessary to effectively share that knowledge. That is, knowing something does not ensure that a person can teach that something. Suffice it to say that the individual prepared only in subject or discipline content is, at best, a poorly prepared person for the typical educational classroom environment. Most failures within the classroom environment, rather than being related to lack of knowledge of the discipline, are much more likely to be related to a lack of knowledge of procedures and techniques for assessing student learning needs; individualization of instruction; management of the instructional/learning environment; discipline; development, construction and provision of instructional materials and so forth. For example, it is highly unlikely that an individual extremely knowledgeable and skilled in mathematics would be a particularly effective instructor in a classroom where a majority of the students were of limited English proficiency, unless the instructor also had training relative to appropriate adaptations of instruction for second language learners, understanding of the processes of second language acquisition, and understanding of English as a second language instructional techniques. The odds are great that this mathematics teacher will, in fact, teach in such a classroom. In a recent study, it was estimated that 42% of all children between the ages of five and fourteen are of limited English proficiency (Waggoner, 1984).

The current and emerging population of students is heterogeneous, significantly non-White, increasingly disadvantaged, of lower socio-economic status, and from widely varying cultural and language backgrounds. Yet the teaching force in this country has been, and remains, largely White. While it is not generally assumed that Anglo teachers are incapable of effectively instructing students from different language and cultural backgrounds, it is generally understood that such individuals, without appropriate training and experience, are more likely to have difficulty understanding and appropriately responding to such students. The fact remains that teacher preparation programs pay minimal lip service, for the most part, to training components which familiarize teachers with culturally and linguistically different students and their instructional needs.

Given these variables which inhibit the production and retention of teachers, the U.S. Department of Labor estimates of the numbers of teachers who will be in place between 1984 and 1995 (will appear in the 1986-87 edition of Occupational Outlook Handbook) may be, at best, optimistic. The Department estimates that there will be a 20.3% increase in the number of elementary and secondary teachers during that ten-year period, with teacher aides and other educational assistants increasing 18.3%.

Critical to the production of teachers is access to higher education. The same U.S. Department of Labor study for 1984-1995 personnel indicates that there will be a 10.6% decline in the number of college professors. Additionally, the need for teachers will run counter to the general trend associated with college enrollments. It is predictable that the general enrollment in colleges will decrease. Of course, highly desired institutions of higher education continue to place restrictions on enrollment. This, no doubt, will continue to be the case, even in periods of low college enrollment.

The issue of enrollment deserves attention, yet the problems associated with retention of students are also of critical importance. Some studies have indicated that less than 50% of the students who choose to enroll in institutions of higher education actually complete their education within the commonly accepted timeframe of graduation. This number increases somewhat with the extended time to graduation (Boyer, 1983). However, the institution of higher education has generally been unconcerned with the problem of student retention. In fact, many institutions historically have certain "cutting courses" through which all students are funnelled in order to precipitate attrition. It is quite unusual to find institutions of higher education dedicated in any extensive way to programs that are supportive of students in academic difficulty. In fact, the more common concept is a "sink or swim" attitude.

In order to provide some response to the growing two-tiered elite and non-elite structure of our society, institutions of higher education must increase their efforts to provide access and retention to the declining supply of well-educated young people in this country. As Hodgkinson (1985) has articulated, the "bottom line" is a rapid increase in minorities among the young population and it is here to stay as an increase. The majority of commitments made within education are not to such students. There are barriers of color, language, culture and attitude which restrict and constrain the educational progress of such students. As Hodgkinson has stated, the task will not be to lower the standards, but to increase the effort of the educational system to provide the kind of direct benefit to such students, which in turn provides the required benefit to all of American society. "The numbers are now so large that if we do not succeed, all of us will have diminished futures."

While the focus of this discussion has been upon the process of access and the provision of training to educators for the future, there are implications for "education professional organizations." Just as in the general population of educators, such organizations have reflected a mostly White advantaged membership and leadership. Sensitizing of professional organizations to cultural and linguistic issues is a relatively new phenomenon within professional organizations. These issues have brought about certain stress within those professional organizations and the education profession.

Additionally there has been a tendency to create greater specialization within professional organizations, i.e., new professions, new narrowed specializations, as well as new divisions or special interest groups, each with their own developed interests and territorial concerns. This specialization inhibits the professional organization from discovering and addressing many of the emerging issues associated with the education profession. The education profession remains a loosely-knit consortium with diminished political action capabilities. For the most part, it is rare for educational organizations to unite on many of the emerging issues of education.

Just as there has been a call for improvement in the educational performance of students, there has recently been significant activity related to improving teacher training. Length of training, where training is provided, curriculum of training, procedures of access, procedures for exit, procedures of formative and summative evaluation, have all come under scrutiny. Of interest is the fact that much of the discussion has centered upon whether or not teachers are adequately prepared to present content knowledge. This is once again reflective of the general external concern with preparing students to be content-competent in order that they may be more proficient and competitive as a work force in the international marketplace. There has been some, yet significantly less, focus upon pedagogy and/or processes of teacher preparation One might state that, in general, the criticism and concerns with teacher preparation have been to diminish, at best, and ridicule, at worst, the need for professional schools of education.

College of education discussions often center upon the concerns of entrance, exit, and the temporal framework for such training, i.e., should there be a fifth year of preparation after the baccalaureate to become a teacher? Should there be a five-year baccalaureate? Should there be a requirement for a master's degree prior to receiving licensure as a teacher? Should there be basic preparation with a bachelor's degree followed by endorsements and/or certification in teaching and teaching specialty areas? While no one would detract from the significance of these discussions or of the questions raised therein, it is of interest that little of the focus has been upon the type of student who will be represented in our society of the future, or of that student's current or emerging educational needs. There has been minimal discussion of change. Most assume that the traditional professional bureaucracy is the organization of the past, present, and future.

Implications for Special Education

Special education has no greater ability than the educational profession as a whole to separate itself from the problems of manpower. In fact, because of unique personality, motivation, and humanism requirements, special education faces even greater problems with required manpower. The issues of minority representation within special education are not unique. However, special educators sometimes behave as if students of different language or cultural backgrounds are the total responsibility of other components of the educational system, rather than special education. However, as the general composition of the student body changes to reflect the demographic shifts, special educators must begin to show greater sensitivity and concern for these segments of the population. These concerns have clear implications for both special education recruitment and for special education training content. The leadership, professional activities, professional development opportunities, and politics of special education professional organizations must also begin to reflect the reality of the emerging American society and its membership.

Because special education professional preparation has additional training requirements and increased complexity of knowledge and skills associated with that training, it is perhaps even more critical for special education to be alert to manpower issues. As manpower becomes a more general problem, special education, as a complementary discipline, will experience greater competition for students and practitioners. There is historical evidence that regular education and other components of the system often have a tendency to "siphon off" the best of those in special education for leadership and other roles within the educational enterprise. The alternative certificate program to train teachers requires particular concern and scrutiny on the part of special education. Alternative certificates focus upon the individual who has a bachelor's degree in a subject content area. Such individuals would need extensive additional training in order to be prepared to deal with the handicapped child. Since the handicapped child is often mainstreamed in regular classrooms, the lack of pedagogical training in alternative certificate programs is a serious deficit for the delivery of quality training to the handicapped student. Special educators must be particularly alert to this potential loss of quality instruction to the handicapped child in the classroom of the "alternative certified" teacher. Special educators need unique and more highly specialized skills associated with learning cognition, adaptation of instructional environment and so forth. These requirements place service limitations on the alternative certificate as an appropriate route for the training of special educators.

It may be that, in the future, special education needs to move toward more heavily integrating itself into the operations of the general education enterprise. Of course, such integration has the effect of decreasing the visibility and unique control of special education as a discipline. However, as resources, societal values, and external demands create greater pressure within the educational enterprise as a whole, special education may find itself more vulnerable and perceived as less essential to the enterprise. That is to say, the more uniquely visible, the more likely is special education to be vulnerable to environmental constraints. For example, instead of special education departments within institutions of higher education resisting, struggling, and ultimately losing "the battle" associated with maintaining separate departmental status, it could well be that their access to students, dollars, and other resources could be enhanced by planned, conscious, negotiated interface with the primary disciplines in education.

In summary, special education, as a profession, must be concerned with the same demographic, economic, physical, and other issues associated with education more generally. Additionally, it must concern itself with its status, position, and relationship as a unique, separate, complementary discipline to the broader, general educational enterprise.

Technology

Technology occupies a unique position of excitement, improvement of the past, and hope for the future within society in general, and no less so within special education. The amazing possibilities associated with current and emerging technology create opportunities never before dreamed of relative to feasible services and adaptations for the handicapped. The emerging interface between the physical sciences and the social and educational sciences is perhaps the most exciting within technology. Within physics, biology, genetics, and cognitive psychology, there appears to be growing interest in unifying these disciplines in ways which address social, demographic and societal problems. While these interactions are in their infancy, there are clues of things to come.

Today the pace of discovery and the acceleration of new technology make it impossible for any of the sciences to remain complacent. For example, the tremendous growth and understanding of process and effect relative to the fertilization and development of the egg hold the possibility of providing special educators with great potential to understand, diagnose and intervene.

Today it is known that the ovum arrives for fertilization with its various "hemispheres." Well-mapped by biologists and geneticists, it is now known that the northern hemisphere of the ovum is destined to become the nervous system and the skin. The southern hemisphere will develop into the digestive tract and the equatorial region gives rise to the skeletal, muscle and circulatory tissues. Work occurring relative to penetration of the various hemispheres, the "sloshing" motion, which brings materials from the southern into contact with the northern and equatorial regions following fertilization, is beginning to define and unravel the mysteries associated with normal and abnormal development of the embryo. Researchers now know that anything less than a thirty degree "slosh" or movement results in serious embryonic errors. "If the movement is small, about five degrees, the embryo has just a tail...about ten degrees it gets a tail and a trunk...at twenty degrees it gets the mid-brain structure, and at thirty degrees it gets the entire fore-brain structure" (Anderson, 1985). That is to say, there are a number of highly scheduled events associated with fertilization and, in turn, mixing of the various hemispheres of the egg. If those scheduled events are altered, either hastened or delayed, fertilization and the normal steps associated with that process result in deficits. Once we know more concerning this process, which regions of genes must get together at what time, and in what place, then the chances are enhanced that man can, in fact, intervene in the process to inhibit, correct, and/or enhance the appropriate formation of the "normal human being."

The importance of this understanding and potential intervention in the natural fertilization development process is clearly expressed by Anderson (1985) who has indicated that 25% of all hospital beds hold patients suffering from some degree of genetic abnormality. There are better than 3,000 currently known genetic diseases which have varying degrees of effect upon the normal lifestyle/functioning of individuals. There are no known cures at this time for genetic disease, but it was not until the 19th century that it was discovered that various infectious diseases could be cured by antibiotics. The possibility of inserting a normal gene into the cell of a patient with defective genes implies that not only can the effect be treated, but in fact, cured. Given the rapid growth of knowledge associated with gene therapy, it has been projected that such intervention may be possible within the next fifteen years.

There has been successful gene therapy in mammals, but only as recently as 1984, when an appropriate growth hormone gene was inserted into a fertilized mouse egg. The mouse would have developed into a dwarf, but because of the intrusion of the growth hormone gene, it developed into nearly twice its projected size. The most likely first candidates for gene therapy in human beings may be those genetically-linked fatal or horribly destructive neurological diseases, such as Lesch-Nyhan Disease, which results in uncontrollable self-mutilation. These diseased states become the first candidates due to their clear uniqueness, obvious genetic relationship, and significant life effects. For example, the gene of consequence in Lesch-Nyhan Disease has been isolated from human bone marrow cells, and experimentation has brought about partial correction of the enzyme deficiency. The potential is there, and the "brave new world" concerns are neutralized by the incredibly positive effects of cure for such horribly debilitating diseases in our society.

The excitement of the computer, particularly the micro-computer, and the communication technologies for educational application have grown steadily within the past ten years. Interestingly, Withrow et al. (1986) indicate that many technological innovations have resulted from efforts to improve the methods of teaching and working with the handicapped. Conversely, many of the innovations which are particularly useful to enhance the life and learning of the handicapped are a result of technological developments such as miniaturization. The dramatic increase in the presence of the micro-computer in education is itself a sufficiently powerful force to affect and alter the educational enterprise. Some studies (Valdez, 1986) estimate that in 1985 there were more than one million computers in place in elementary and secondary schools in this nation, with one-fourth of the nation's school teachers (500,000 plus) using computers in the classroom.

Computers

The Office of Technology Assessment (1982) indicates that 20% of K-12 schools and colleges now have video disk playback equipment, and it is estimated that by the end of 1985, more than 250,000 interactive video disk systems will be in educational use in the United States. The current emphasis and movement to utilize computers for instruction-related purposes are quite different from the abortive attempts in the early 60's to bring computer-assisted instruction into the classroom. Current research is beginning to show that computer-assisted instruction does achieve appropriate results (Valdez, 1986). Lesgold (1986) suggests that computers have two important roles in the classroom: 1) they can be successful in teaching some of the skills appropriate for the emerging information and computer age; and 2) they support students dealing with instructional arenas which have historically been too complex and beyond the normal limits of human cognition.

While there is growing general consensus of the utility and importance of computers, particularly micro-computers, in the educational environment, it is still quite unclear how to accomplish the broadest dissemination and to meet the extremely large training requirements for teachers and students to effectively utilize this new medium. The debate over teaching of programming skills versus other application skills continues to rage under the topic of computer literacy. There are other frequently debated issues associated with the computer, such as: should the computer be used primarily for drill and practice; does the microcomputer lab place students into passive and controlled environments that are incompatible with the broader educational goals; is there equality of access to the technology for all groups? The known disparity between wealthy and non-wealthy school districts suggests inequity of access, and the socio-economic status of parents further delineates problems of equality and access.

There has been some exciting work, at this point still within the "scenario" stage, of how to enhance instruction by linking the micro-computer to other technology, such as interactive video (Savenye & Hudspeth, 1985). Beyond scenarios, there are significant applications of technology in place in some schools. For example, the Houston Independent School District established a centralized department of technology as far back as 1982 (Sturdivant, 1986). Few public school teachers or university students being trained as teachers are prepared to effectively utilize micro-computer and communication technologies (Kauffman et al., 1985). Use of the technologies and materials currently available would require considerable change in the teacher's traditional role and therefore significant changes in the preparation of teachers. Tuscher and Harvey (1985) suggest that the change in the teacher's role is from delivering instruction to becoming principally a manager or supervisor of instruction.

Emerging advances in both conceptualization and development of hardware and software will pale into insignificance the effects of current computer and communication technologies. Major computer conceptual work is occurring in two primary arenas. One relates more to hardware and the other to software system management. Hardware conceptualization is occurring in the area of parallel processing. Work for the computer is organized such that it may occur in parallel, rather than in hierarchical sequence, which is true of all current computers. Parallel processing will dramatically increase computer speed, perhaps ten or twenty times the speed of the current "super" computers which are only now beginning to emerge in certain highly selected research centers. In fact, it's conceptualized that these jumps in computer speed are necessary and possible only if there are new conceptualizations of the computer, as the upper limits have been reached for the traditional sequential processor.

The net effect of parallel processing is not only greater speed, but an almost limitless number of variables that can be simultaneously considered in parallel, with the result being an ordering of relationships and a logical linking of variables. These links could enhance not only the understandings and insights that can be drawn from those variables, but could move beyond current human levels of cognition. It is quite clear that, as the world has grown more complex, one of the deficiencies plaguing modern society is that complexity exceeds the ordinary human limits for retention of, ordering of, and response to information in a timely and efficient manner. Such parallel processing and its almost untold limits does, in fact, begin to address this deficit of modern society.

The second area of major conceptual work at this point is associated with artificial intelligence and/or expert systems. The concept is that knowledge and/or conceptualizations are arranged or configured within computer memory, various procedures or steps required in a process are also placed within computer memory, and these components of memory are then filtered by an overlay of what is called the inference engine or the logic or rules known to be associated with the question, problem, or phenomenon under consideration. Successful AI systems, such as MYCIN and NEOMYCIN, have been around for about ten years (Shortliffe, 1976). These systems were designed to provide diagnostic information based upon clinical data relative to various forms of meningitis. However, there are few known applications of artificial intelligence and expert systems in education. The ability of the expert system to determine when, what, and how relative to the identification of learning problems, providing individual instruction, determining interventions, and so forth, suggests a powerful tool to help the teacher truly individualize the educational process for students.

Communication Technologies

While it is somewhat artificial to speak of computer technologies and communication technologies separately, it is important to recognize that there are other technologies that can be enormously useful to the educational enterprise. There is a tendency on the part of educators to focus upon computer applications. However, educators should examine improvements in the capacities for transmission of information. For example, optical fibers, if fully exploited, have been estimated to have the capacity to carry all telephone voice traffic in the United States on a single optical fiber (Lucky, 1985). The capacity of optical fibers has, through experimentation, already been documented to be capable of carrying four billion bits of information (about the equivalent of the entire 30-volume Encyclopedia Britanica) and to transmit this volume each second. Lucky (1985) estimates that this magnitude of information transmission will likely increase five-fold within the coming decade. It is anticipated that the optical fiber will move from the telephone communication switchboard to the typical home and school as a next step, providing literally hundreds of communication channels capable of two-way interaction. Such capabilities pale into nothingness the excitement once felt with the installation of coaxial cable capable of two-way interaction for the delivery of the television signal to the home.

Connect the advances in optical fiber technology to those of satellite transmission and the educational enterprise has access to technologies which could solve many of its policy, financial, and instructional dilemmas. For example, to combine these technologies with other technologies such as computer-driven interactive laser video disk, computer networking, and so forth, would make it totally feasible to provide students in isolated rural school districts the same quality, variety of instruction and curriculum content available to the student in the most sophisticated, wealthy urban or suburban school district. The promise held for instructional television in the 50's and 60's can reach fulfillment in the 80's and 90's when interfaced with the emerging technologies.

Developments are occurring in a variety of locations. For example, in Texas a profitable satellite communication company distributes regular Carnegie unit credit courses, such as Honors English, German, algebra, etc., to better than 100 school districts. Alaska has been successful in bringing high quality information to almost all corners of the state via television. The state of Indiana's higher education telecommunication system connects more than forty-five educational institutions in a microwave network, providing everything from direct instruction to research and consultation. Technology for education has truly begun to realize the science fiction "Buck Rogers" potential.

Implications for Special Education

Special education has both the need and the potential to benefit from the application of technologies. However, as the educational system becomes more involved with computer technologies, and initiates the acquisition of hardware, software, and personnel training, there very well may be a tendency on the part of general education decision-makers to "overlook" special education in these technology efforts. For example, it is not uncommon to hear educators and others indicate that handicapped students do not need the latest equipment and technologies. How frequently has the special educator had to accept and/or fight for something better than the out of adoption textbooks, left-over or worn-out equipment, and so forth? When task forces and committees are formed to develop technology application, special educators must be a part of these decision-making groups. When training is initiated for using micro-computers, special educators must remind regular education decision-makers that special educators, just as mathematics and science teachers, have the potential to effectively utilize the micro-computer. When projects are initiated to develop specific courseware for the core curriculum, special educators must remind decision-makers that the handicapped must be considered from the very first conceptualization of general curriculum courseware. It is often overlooked that the handicapped student, through mainstreaming, is a part of the regular education effort.

The computer has been conceptualized as providing the potential to solve some of the manpower and quality of teaching force problems in regular education (Norris, 1985). It can also be useful relative to the manpower issues in special education. Perhaps the point is clear and one example will suffice. The greatest manpower shortage in special education today in the Southwest and urban areas is the almost non-existence of trained bilingual special education teachers. If technology could facilitate content presentation to limited English proficient students, for example, using computer-driven interactive video laser disks, which follow known principles of second language acquisition and English as a second language instruction, it would be far better than trying to instruct such students by using a bilingual instructional aide.

One of the distinct limitations of conducting research related to the handicapped is that the range of variables associated with the handicapped is so confounding in ordinary research designs that conclusive results are illusive. The potential of parallel processing computers to handle exceedingly large numbers of variables, and eventually interfacing these variables through appropriate computer communication, provides optimism and thought for tomorrow's research.

The development of artificial intelligence and expert systems holds tremendous promise relative to many of the problems which have been almost synonymous with serving the handicapped. For example, it is quite clear that the diagnostic system is the "gear wheel" that drives the special education system. One must be assessed to get in, to stay in, or to get out. Recognizing the ability of expert systems to consistently and dispassionately apply rules and procedures to data eliminates a number of the current plagues of diagnosis and placement decisions for the handicapped. For example, the over-representation of minorities within certain categories of special education, and the under-representation of minorities within other categories is likely reflective of the misapplication of law, procedure, and decision rules through ignorance, prejudice, haste, fatigue, and other factors. Expert systems could provide specific control points, require new or different information and/or point out illogical decision conclusions which daily plague decision-makers regarding the handicapped. The potential of such expert systems to make the IEP an individualized, carefully considered, informed instructional plan is an exciting prospect.

Experimentation is already underway to utilize the computer to select appropriate test items specific to the individual under examination (ETS Developments, 1985/86). Such selection could make individual test item adjustments for handicapping conditions, both prior to and during assessment.

The incredible storage capacity of the video laser disk system provides the potential for data collection, maintenance, and dissemination problems, which have perpetually plagued special education, to be solved. The dilemma of how to share the information in the "pupil folder" housed in central office files, with the classroom teacher(s) has continuously plagued special education. Some have even discovered that the IEP is never seen by the person directly responsible for instruction. Television, fiber optics, and interactive video disks could make such information immediately available to all those having need for such information.

Utilization of television, communication satellites, fiber optics, interactive video disk and other technologies can address issues in special education which have historically been inadequately or inaccurately addressed. For example, such technologies bring the same level of expertise and competence to the rural environment as is present in the largest, most sophisticated, medical centers of urban areas. The potential exists to send into the home, where the television is always present, high quality parent training, and with two-way interactive capability, to provide parent feedback, relative to their handicapped child. Such intervention could begin almost at birth, being extremely cost-effective relative to parental contact and training.

Just as parents can be trained utilizing these techniques, the broadened access to quality training can serve professionals. The days of the "in-service education conference" may be numbered. Additionally, such technologies may begin to place a limited lifespan on the traditional professional association conference. The need for thousands of individuals to gather in one location where hundreds of program topics are presented, many simultaneously, disappears when there is the potential for that information to be captured, shared, and available in almost any location twenty-four hours a day.

Technology could address many of the teacher quality concerns by enhancing the ordinary clinical supervision process. For example, the clinical supervisor observing a classroom could record teacher behaviors directly into the microcomputer which would then record, analyze, process, and provide immediate feedback to the teacher via a television monitor. The process becomes almost "biofeedback" to the classroom teacher. Additionally, such records could serve as benchmarks, diagnostic tools, and legal documents needed in the teacher improvement/teacher monitoring process. Teacher "patterns" could be overlays of preferred records of teacher performance, thus enhancing objective teacher assessment.

In the competitive employment world, where the handicapped individual is normally at a disadvantage, technology-supported performance may dramatically improve the employability of the handicapped. For example, the micro-computer could serve as an extension and expansion of memory, often an employment deficit for some mentally retarded and learning disabled individuals.

In summary, technology provides great potential for special education and the handicapped in addressing current and emerging problems and issues. The caution for special education is that these applications are not often immediately obvious to key regular education policy-makers and decision-makers. The arena of technology application alone provides powerful inducements for the special educator to become more directly involved with the regular education decision-making processes. Constraint upon technology applications in special education would be tragic as such technology offers the hope to: improve the quality of diagnostic processes; individualize instruction; make high quality expertise and instruction available in almost all geographic locations, improve research and development; improve accountability, enhance equity opportunities; and open new vistas of life opportunities for the handicapped.

Societal Values

Thomas Jefferson concluded that an educated populace is essential to a democratic form of government. Schools have traditionally been the driving force behind an educated and informed society. The current debate about schools inevitably includes discussion of the deterioration of schools measured by standards, such as SAT scores, number of academic courses of rigor, and so forth. However, as Hawley (1985) suggests, it is a generally erroneous leap from believing that schools are deteriorating to the conclusion that the policies which direct schools are flawed. The question becomes: have schools changed for the worse, or have societal values and expectations changed?

Public schools more than other units of society require the general public to function as direct decision-makers. Voters directly express control over school budgets and, in turn programs, through bond and millage increase elections. Additionally, the constitutional, as well as historical, tradition of local control for public schools provides the structure for them to be more responsive to the public than is true of many units of government, business or industry. Therefore, the operating ethos of public schools is reflective of those values operating within society. That is to say, whatever is good or bad about public schools today is, in general, a mirror of whatever is occurring within our society. As society and its values shift, so do the values associated with the educational enterprise.

The concern is that education waxes and wanes with the political ideologies of those who possess power at a particular point in time. For example, the current president expressed a desire to substantially reduce federal spending for education. The most visible evidence was his proposed elimination of the U.S. Department of Education. Some of these changes advocated by political forces in the country reflect true ideology shifts. For example, the advocacy of the Reagan administration and Secretary of Education Bennett for the family choice or voucher plan reflects a fundamental difference in the historical position of public education serving as the primary vehicle of education. While the $600 voucher per child, which is currently being suggested, is insufficient for lower socio-economic students to gain admission to most private schools, it does reflect a clear shift in values.

There is a developing perception that it can no longer be assumed that more education is beneficial to the individual or to the economy. The need for "education" as it has been known is growing more suspect, clearly, a shift from previous values that education is essential to "get ahead" (Perelman, 1986).

The economy has begun to provide an entirely different constituency for schooling. While schooling has historically been associated with the young, the concept of adult re-training is developing in order to satisfy the substantial new knowledge and re-training needs of the "high tech" economy. An additional variable which brings focus upon the adult rather than the young learner is the fact that at least 20% of the adult population is illiterate, therefore incapable, without appropriate remedial training and job-specific training, to enter the labor force. This shift in the location of training is nowhere more evident than in the estimate that $80 billion per year is spent on employees in employee training and education, an amount equal to all of higher education spending (Perelman, 1986).

As the developed countries move from an industrial based to an information/service based economy, the values associated with education begin to shift. There is no longer the need for education to produce graduates trained for specific employment, but rather individuals who are trained to be flexible, capable of multiple re-training and renewing of skills to fit constantly changing employment needs.

These shifts in societal expectations have significant implications relative to the way the educational enterprise is organized. For example, at this time, most education is provided in tightly structured vertical units called disciplines, and an individual is required to make choices among the disciplines by selecting a "major course of study." Within institutions of higher education, departments and colleges almost stand alone in terms of their operation. It is indeed unusual and, in most cases, artificial for any interdisciplinary activity to occur. Faculty and students identify themselves specifically with the "major" or department, and there is little interface with other disciplines. Ironically, societal expectations are placing heavier demands upon the enterprise to show horizontal breadth, rather than vertical depth. The problems of the "real world" require interdisciplinary action for solution. For example, for a number of years there has been a need to have interdisciplinary decision-making in special education, e.g., participation by psychology, education, curriculum, medicine, and so forth. As such, special education serves as a unique example of interdisciplinary action. However, at an operational level, even within special education, where such interdisciplinary action is publicly required, each discipline "does its thing," and, supposedly, organizational mechanisms such as the Admission, Review, and Dismissal and/or the Annual Review, through interdisciplinary committees, integrate this knowledge for an appropriate decision relative to the handicapped student. All who have participated in this process recognize and understand the difficulty with functionally implementing this conceptual interdisciplinary practice.

As our society becomes more familiar with and more heavily utilizes the computer, it produces yet other conflicts in societal expectations and values. For example, the concept of the "electronic cottage" or the possibility of the individual working at home alone, rather than in a specific workplace with colleagues is not only more feasible, but it is becoming more commonplace. Deutsch (1985) suggests that participation in teams or work groups is actually an imposition which violates the "computer baby's inner freedom and self-expression." Deutsch presents a matrix which describes the emerging differences from pre-World War II through "computer babies" relative to key characteristics of the work force. For example, one of those characteristics is associated with the preferred working environment which Deutsch describes as having progressed from a pre-World War II environment, where one worked his or her way up the ladder of success, over time to the 70's and 80's era of participatory management, quality circles and teams, to the emerging future time period in which the individual works with autonomy and little supervision.

Not only are these shifts in expectations expressed in the workplace, but other aspects of our society as well. The generation which emerged through the 50's and 60's as baby-boomers had high expectations of "making it in society," now "wants" from society, behaving as if it were entitled. The concept is "I am entitled" as a young adult to the best of material wealth - home, cars, "I am entitled" to any behaviors that I wish - driving where I want, in whichever lane, at whatever speed, and so forth.

There has been a growing tendency for society to be litigious. Almost any phenomenon or event is a potential lawsuit. Schools have reflected this shift in societal values. Rare is the school superintendent who is not currently being sued, or the school board that is not under some court order of restraint pending the resolution of litigation. Schools have the same complaints as business and industry relative to the intrusion of law and legal processes into day-to-day operations. However, as schools experience litigation and intrusion, they become less concerned and responsive to the "fear" of being sued.

Society has shifted from the "traditional family" where there is a wife and mother, who stays at home to take care of the home and children. The working mother and the level of divorce are seen in society, but are also noted in the school environment. The concept of family and parent continues to shift and change. However, schools are under pressure to maintain "tradition" and are criticized for results of circumstances and behaviors of students reflective of societal changes.

Future expectations of society may call for quite different curriculum in schools. Expectations may be for the curriculum to focus upon such skills as the capacity to engage in negotiations, to have a global perspective, to integrate knowledge from the "disciplines," to understanding of public policy, social costs and benefits, and a realistic understanding of the "self." The emerging expectation is that school systems are responsible for teaching these skills and values (Raspberry, 1986).

The shift in the societal prestige accorded education as a discipline and particularly teachers within our society has created, in the views of some, (Gifford, 1984) many of the problems and difficulties currently associated with the educational enterprise. The loss of prestige, while precipitated by a wide range of variables, has also brought with it the loss of self-control by education. Rare is the university setting where education is perceived as an important discipline, much less a prestigious or powerful one. Ironically, as society demands greater breadth, rather than depth of specialized knowledge, education is the unit of the university most likely to be able to bring that organization into realistic interface with society. For example, universities have internal and external concerns with the need to improve the representation of minorities on university campuses. Yet, it is the educational community within these universities which has the greatest opportunity to link the growing ethnic pool of individuals to the university community. Rarely has the university sought to improve minority enrollment by developing activities and interface with schools and colleges of education which have links to the public schools.

Schools have and will continue to mirror the value changes of society.

Given the speed of change of the emerging future, it can be anticipated that significant and continuous shifts will occur in values, complicating for schools the appropriate response set to meet the expectations of society.

Implication for Special Education

Schools have and will continue in the future to reflect the values of society. The future suggests not only continuing, but more rapid, value shifts. In order for special education to "do well" under conditions of shifting values, it must, as a discipline, initiate efforts to monitor these changes in the directions of value shifts. Technological forecasting techniques which allow this type of monitoring to take place are available (Klein & Newman, 1980). Professional associations, such as the Council for Exceptional Children, could monitor societal values through formal forecasting procedures, such as issues management networks. By disseminating these data, professional associations could help the discipline respond to inevitable value shifts.

A number of the societal values described have clear implications for special education. The advocacy for and movement toward vouchers or family choice systems create a potential for special education to be one of the "left-overs" remaining in public schools. It is unusual for private schools to provide extensive special education services.

As the value of formalized education is questioned, resulting in diminished support and resources for education, more specific questioning of the value or worth of special education may develop. Special education has always had to fight the traditional value set that handicapped persons are of limited worth in comparison to the "normal" individual. Perhaps the greatest constraint on special education has always been the nature of prejudice. Federal policy reflects societal values, and, in turn, dictates federal expenditures and guidelines for education. The historical development of special education has been closely tied to federal law, policy, and funding. As federal dollars for education are reduced, special education could expect diminished influence, control and resources.

Much of the emphasis of special education has been upon the young, and within recent years, special education has developed within its complementary discipline specific emphasis upon early education for the handicapped. As this country grows older, and as the values expressed by its older voting citizens reflect adult concerns, special education may become less visible, less important, and less valued by the voting public, due to its association with children and youth. It may be wise for special education to recognize the emphasis on adult concerns of an older population and to begin to associate itself in a variety of public ways with the adult population.

There is less value being attached to "job training." The traditional emphasis of special education and vocational rehabilitation on specific vocational job training for the handicapped may create a lack of support for special education as general societal values shift away from these interests. Special education, as a complementary discipline, must create and explore innovative and unique ways to link itself to business/industry. These links are necessary in order to fit the value orientations of that community relative to employment opportunities for the handicapped.

As societal values shift to require greater horizontal breadth and interdisciplinary interface, special education must be particularly sensitized to these shifts in order to find appropriate linkages with other disciplines. In fact, due to the historical requirement for interdisciplinary approaches in special education, special education could provide the model and, in turn, enhance its position as society places more emphasis upon interdisciplinary requirements.

As society's values become tolerant of a different working environment, such as the "electronic cottage," with work being performed at home, the independence for the worker implied by such shifts could create difficulties for special education. The traditional emphasis in special education has been upon the need for supervision and/or oversight for handicapped employees.

As the values of society shift and the "baby-boomers" reflect the feelings of entitlement and Narcissism, quite conceivably these shifts will prove incompatible with the more humanistic concerns for the "needy," including the handicapped.

The previous and current emphasis of litigation in our society has produced a desensitization on the part of school leaders, such as superintendents, to litigation. That is to say, school superintendents and boards no longer fear litigation. For special education the "fear" and implementation of litigation has been one of the more powerful forces behind the development of broader and more extensive special education services. With reduced concern for litigation, special education will experience less ability to influence and control the general system's response to the needs of the handicapped within those systems.

As there has been a general societal shift in values away from the traditional family, there may be a general reduction in the ability of parents to organize and advocate. Historically, special education has experienced its greatest support from the advocacy of parent groups. As societal values shift away from the opportunity for parent advocacy, special education may experience reduction in its power and influence.

In summary, special education as a profession and a service delivery mechanism of society, is significantly affected by societal values. Special education must accurately determine shifts in values and find mechanisms of appropriate special education service and professional activity that are responsive and acceptable within these changing societal values.

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Implementation of P.L. 94-142 and Its Accomplishments, Problems and Future Challenges: A State Education Agency Perspective

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IMPLEMENTATION OF P.L. 94-142 AND ITS ACCOMPLISHMENTS, PROBLEMS AND FUTURE CHALLENGES: A STATE EDUCATION AGENCY PERSPECTIVE

INTRODUCTION

During the past ten years, I have had the opportunity of working as a state director/assistant state superintendent of special education/special services in Idaho and in Washington. During this time, I have also been active in the National Association of State Directors of Special Education (President, 1977-78 and member, Board of Directors, 1975-79); as well as in a number of national, regional and state special education councils, committees and projects. These experiences and involvements have allowed me to be a part of and to observe some dramatic changes in special education during the past decade within these states and across the nation. Following are some of the key features of change within the states since the passage of P.L. 94-142 in 1975:

- Guaranteed access to education for all handicapped children and increased services for gifted children.
- Marked improvement in the quantity and scope of multi-disciplinary pre-placement evaluation and re-evaluation procedures.
- Strides toward a continuum of education, social services, employment and independent living services for students with handicaps from birth to adulthood.
- Increased involvement of parents in educational decision-making for their handicapped children.
- Placement of handicapped students in environments that include non-handicapped peers.
- Provision of special education and related services in accordance with an Individualized Education Plan (IEP) that has been developed during a multidisciplinary meeting between school personnel and the parents.
- Guaranteed due process and other procedural safeguards for handicapped children and their parents.

Public Law 94-142 as well as state laws for handicapped children have required state education agencies (SEA's) to play a lead role in the development and support of statewide special education and related services for handicapped children and youth. This paper will review accomplishments which have been the focus of work in SEA's throughout the past decade. In conjunction with this review, there will also be a discussion of problems affecting current practices as well as implications and challenges for the future.

ACCESS TO EDUCATION FOR ALL HANDICAPPED CHILDREN

Accomplishments

The single most important contribution of P. L. 94-142 has been to guarantee access to education for all handicapped children within each state and across the country. Since the passage of P. L. 94-142, an additional 600,000 handicapped children have received special education and related services (U.S. Department of Education, 1985). Last year (1985-86), more than four million handicapped children were served by the 50 states and territories (U.S. Department of Education, 1986). The number of handicapped children receiving special education and related services now accounts for 9.6% of all students enrolled in Washington State compared to 11% nationwide. This is a national increase of 3% and a Washington State increase of 5.4% since the 1976-77 school year.

During 1974-75, I coordinated a statewide child find program throughout Idaho in order to find and locate out-of-school handicapped children and youth. This SEA public awareness campaign included television and radio spots; bank and grocery sack stuffers; posters; letters sent home with school-age children to parents and community service presentations to Rotary, Lions, Elks and other service clubs.

Shortly after Governor Cecil Andrus proclaimed May, 1974 as Idaho Child Find Month, we began to hear about cases of unserved handicapped children as well as several found locked in closets. I also received a telephone call on a Sunday morning from a postman in a small Northern Idaho town who had observed a large gunny sack with a moving object placed in the back seat of the car prior to carrying out family errands. After having observed this occurrence several times, the postman wondered if the movement in the bag might be a handicapped child and the focus of television and radio Idaho Child Find public service announcements. Indeed, this was a 9-year-old boy with Downs Syndrome that was being "sheltered and protected" at home because the parents were unaware of available help for their child. The parents were also uncomfortable with the boy's differences and the impact on others outside the home. Upon identification, this child was placed in a public school special education program and has since graduated and is employed within the community.

We have come a long way in the states to improve the public awareness and acceptance of differences. Intensive "Child Find searches" coordinated by SEA's in Idaho, Washington and in all states have spurred widespread identification of unserved and underserved handicapped children and subsequent provision of services for handicapped children.

Current Problems & Issues

Despite the numbers of handicapped children now receiving special education, there are still some underserved and/or unserved groups of children. Washington State not unlike other states is yet unable to adequately serve all students with severe behavioral disabilities. The Washington SEA and the Department of Social and Health Services are currently struggling with the development of in-state options for a limited number of these students which have been placed out of state. Our goal is to eliminate out-of-state placements and provide services closer to the child's community. In addition, we have identified approximately fifteen troubled deaf youth who require additional services. An appropriate service option is being pursued with the Washington Legislature.

A statewide study of the needs of behaviorally disabled students (Haring, Jewell, et. al, 1986), recently completed for the Washington SEA by the University of Washington and the Highline School District, has identified yet another "subtle" underserved group of students. Findings of this study indicated that at the secondary level, students with behavioral problems are often not referred for assistance because appropriate services may not be available. Legal concerns exist about putting unvailable but needed services on the IEP, as well as the consequences of suspension and expulsion of students labeled as SBD (seriously behaviorally disabled). Children with behavioral problems but not identified as SBD who are suspended and expelled from high schools represent a continuing problem and an unserved or underserved group of students.

A further underserved group of handicapped children and youth within the states are those residing in state institutions and state correctional facilities. State education agencies do not have legal jurisdiction over some of these programs. Interagency agreements and relationships have assisted the development of programs and services for eligibile students within these facilities. There is, however, an unfinished agenda for these students.

Additional challenges remain in the provision of appropriate special education and related services to students in rural school districts, particularly for those with low incidence handicapping conditions. Parents continue to be concerned about the lack of sufficient support in rural schools for their blind or deaf child.

Another continuing problem is the high rates of students who drop out of school. Various national statistics indicate that between 18 to 25 percent of all 18 year-olds have not graduated from high school. Dropout rates may be as high as 50 percent or more in many inner city schools. It is estimated that a high percentage of these students leaving school are handicapped or at risk and are experiencing academic and/or social difficulties. John Goodlad(1984) wrote in his book, **A Place Called Schools,** "the quality of an educational institution must be judged on its holding power not just on the assessment of its graduates".

Recent educational reform measures have the potential of increasing dropout rates among handicapped and other students experiencing academic failure in the classroom.

During the past two years, 43 states have raised their graduation requirements; 15 now require exit tests for high school graduation and 37 have instituted statewide assessment of students (Education Commission of the States, 1984). Others are looking at ways to extend the school day or school year. Higher standards and longer school days may lead to greater academic stratification and less student choice in school. An increased focus on basic skills, core academic subjects and college prep courses may reduce the hours available for electives, career education and vocational education opportunities reinforcing to many handicapped and marginal students experiencing academic difficulties. McDill, Natriello and Pallas (1985) have examined the potential influence of school reform policies on the high school dropout rate. They reported that one third of high school dropouts included in their study cited poor grades as the prime reason for dropping out, and one-third indicated that the academic focus in school was not for them.

Another current problem that state education agencies are facing is concerns about over-inclusion or overidentification of handicapped students. Laurance Lieberman (1984) wrote in his recent book, **Preventing Special Education for Those Who Do Not Need It,** "when the mandate (P.L. 94-142) was given, a handicapped child was not handicapped because he was failing in school, but he was failing in school because he was handicapped". Increasing debates and discussions are occurring within state education agencies, state boards of education and state legislatures about the extensions of special education to students who are not handicapped but simply experiencing academic difficulties in school. The lines between those students failing in school and those who are handicapped are becoming increasingly unclear.

The increase in numbers of students being identified as learning disabled has been termed a national crisis. In his recent report to the U.S. Department of Education, **Identifying Learning Disabled Students,** James Chalfant (1985) noted that the literature has reported over 50 terms to describe learning disabilities and that states are using over 38 different definitions. Although Congress initially imposed a 2 percent cap on the number of students who could be served as learning disabled under P.L. 94-142, this limit was lifted in 1979. SEA's have found this population continuing to spiral.

In Washington State, 4.6 percent of the total student population is currently identified as learning disabled (1985-86), compared to 1.8% in 1975. After studying alternative eligibility criteria approaches and the impact of each on the current population of identified learning disabled students, the SEA has implemented a revised statewide definition/eligibility criteria in order to achieve more consistency in identification from district to district and to more sharply distinguish between handicapped students and those with remedial problems (slow learners). Research activities continue to monitor the impact of the revised state definition/eligibility criteria. For example, we are currently reviewing the parameters being utilized for professional judgment as a part of the LD identification process.

There are a number of reasons for the growth in the learning disabled population. First, some of these students have previously been identified as mild mentally retarded or behaviorally disabled, and are currently classified as learning disabled because the term is less stigmatizing. There have also been financial incentives to identify students as learning disabled. In addition, because of funding limitations in other programs such as Chapter I, students with learning problems have been referred to special education for services. A final, and I think significant reason for the growth in this category is an overall categorical mindset that has evolved during the past decade. Instead of stressing pre-referral interventions within the regular classroom, we have "taught" regular teachers that if help is to be obtained for students experiencing learning problems, these students must be referred for testing and placement within special education or another categorical program.

In Washington State, a total of 16.5% of the student population is receiving assistance for mild and moderate learning problems in special education (4.6%), Chapter I (8.1%) and/or our state funded Remediation Assistance Program (RAP-3.8%). These figures in Washington are not unlike those in other states. This is not unexpected as statistically between 20 and 30 percent of a given student population are likely to be having academic difficulties.

This figure is likely to increase in the future as the student diversity in the classroom becomes more complex. Hodgkinson (1985) has reported various demographic changes in our country. For example, he reported that every day in America, 40 teenage girls give birth to their third child. Teenage mothers tend to have children who are premature due mostly to a lack of physical examinations and to poor diet during pregnancy. Prematurity leads to low birth weight, which increases these infants' chances for major health problems and later learning difficulties when the child gets to school. This means that about 700,000 babies of an annual cohort of around 3.3 billion births may have learning problems later in school (Hodgkinson, 1985).

Hodgkinson (1985) reported other demographic changes such as over half of the females of working age are in the work force resulting in an increased number of "latch-key children" or those who are home alone after school. There are at least four million "latch-key" children in the nation who are school age (Hodgkinson 1984). The evidence is not yet in. Some of these children may benefit from having increased family responsibilities while home alone, but many others may become problems at school. Increasing poverty rates is another demographic change resulting in increased numbers of children experiencing learning problems in school. There is a rapid increase in the number of poor households headed by a female Black or Hispanic. Hodgkinson (1984) indicated ninety percent of the increase in children born into poverty is from these households.

He also observed that a child under six today is six times more likely to be poor than a person over 65. The result is an increase of over two million children who are "at risk" from birth (Hodgkinson, 1985). A final demographic change to be considered is the increased racial and cultural diversity. Hodgkinson (1985) reported that today we are a nation of 26.5 million Blacks and 14.5 Hispanics. By 2020, These figures will increase to 44 million Blacks and 47 million Hispanics (Hodgkinson, 1985). By the year 2000, America will be a nation in which one of every three persons will be nonwhite (Hodgkinson, 1985).

It is clear that children coming toward the educational system will be poorer, more ethnically and linguistically diverse and will have more learning differences. A major challenge for us during the next decade will be to re-define the tolerance of individual differences within the regular classroom and to alter the current categorical mindset we have that tends to refer away from the regular classroom a large number of children who are having learning problems. Mrs. Madeleine Will, Assistant Secretary, OSERS, has recently suggested (1985) in her article, "Educating Children with Learning Problems: A Shared Responsibility", that the numbers of children with learning problems alone argue for new strategies to increase the educational success of these students. This trend of increased student diversity will be in conflict with a second trend of limited growth in fiscal resources imposed by the search to balance federal and state budgets. This reality will require us to explore effective and efficient service delivery options for students with learning difficulties.

A number of states are initiating program refinements for students with mild learning problems. In Washington State, the SEA has implemented a statewide Special Services/Regular Education Initiative across both of the Divisions of Special Services and Instructional Programs and Services. A major activity within this Initiative is to support "lighthouse" strategies within selected school districts to implement regular education pre-referral alternatives to assisting students with learning problems. These strategies include Teacher Assistance Team variations, consulting teacher intervention, peer tutoring, cooperative learning activities and study skills training. Preschool and early intervention strategies for handicapped and other high risk students are also being implemented. Class size issues and staff development are also being explored. In addition, various research and training activities are being implemented between the Washington SEA and the Association of Washington School Principals to enhance the role of the principal in leading building-based teams through the process of program refinement and change. Other Initiative activities include the work of a statewide committee to provide advice to the SEA about needed policy or funding changes related to increased pre-referral interventions and enhanced coordination and linkages between special education, other categorical programs and regular education. As states and school districts begin to plan and develop program enhancements and linkages with regular education to better serve students with mild learning problems, federal and/or state administrative and funding policies will need to be brought into accordance.

Future Challenges

- Continued child find and other efforts to identify unserved and underserved groups of students with handicaps.
- Development of program options for identified unserved and underserved groups of students with handicaps such as those with behavioral disabilities at the secondary level, those with low incidence handicapping conditions in rural areas and those with sensory impairments in rural and urban school districts.
- Monitoring of the negative, unintended outcomes of educational reform measures upon increased drop-out rates among students with handicaps.
- Implementation of strategies to retain and adequately serve students with handicaps at risk of becoming high school dropouts.
- Implementation of statewide initiatives to increase the number of service options available for students with mild learning problems. Such options will include increased partnerships between regular education, special education and other categorical programs to enhance regular education's capability to serve students with mild learning problems prior to referral to special education as learning disabled and/or to other support programs.
- Enhancement of the principal's role in building-based program refinements for students with mild learning problems.

CONTINUUM OF SERVICES FROM BIRTH TO ADULTHOOD - EARLY CHILDHOOD INTERVENTION

Accomplishments

As a strong advocate for early prevention and intervention and from my perspective as an SEA special education administrator, I think significant advances have been made in the states during the past decade for children with handicaps ages birth to six.

During the 1984-85 school year, 259,483 handicapped children nationwide between the ages of 3 and 5 were enrolled in special education (U.S. Department of Education, 1986). Although the majority of funding for such programs comes from the state level, the federal government has provided extensive leadership and support in the area of early childhood education.

Following the enactment of the Handicapped Children's Early Education Assistance Act, P.L. 90-538, the federal government began to fund model demonstration projects in order to promote a comprehensive service delivery system to meet the special needs of children with handicaps in infancy through the age of 6. Each state now has at least one demonstration grant. The U.S. Department of Education (1985) has reported that over 400 demonstration grants have been funded to date. In addition, less than half of the states in 1977 participated in the Preschool Incentive Grant which provides funds to serve handicapped children aged birth through five. During the current year, all fifty states utilize these resources. The State Implementation Grant program established in 1976 has awarded grants to 43 SEA's and territories to help plan and coordinate comprehensive preschool delivery systems (U.S. Department of Education, 1985). This program was replaced in the Education of the Handicapped Act Amendments of 1983, P.L. 98-199, with the Early Childhood State Grant Program. All 50 SEA's currently participate in this program. In addition, at least 18 states have utilized a portion of the Education of the Handicapped Act Discretionary funds to expand preschool services (U.S. Department of Education, 1985).

Progress is continuing in the implementation of a comprehensive service delivery system for young handicapped children within the states. Currently, nineteen states have mandated educational services to handicapped children ages 3-5 years. Another six states require services down to birth. Ten additional states have limited services mandates in the 0-6 age range (telephone conversation with TADS). Washington State implemented mandatory preschool legislation for four-year-old handicapped children during 1984-85 and for three-year-old handicapped children during the current school year, 1985-86.

All SEA's have expanded their leadership activities to implement various mandates and statewide service delivery for young handicapped children. These activities range from completion of statewide effectiveness studies, development of program standards and guidelines, development of systematic screening procedures and interagency collaboration. Interagency planning is increasing, as well, in services needed for the birth - three population. SEA's have funded or supported research studies regarding the effectiveness and impact of early intervention. Although additional research is needed, studies on the effectiveness of preschool programs have shown that infants and preschoolers who receive early intervention show significant improvements in development and learning. Findings from the "Perry Preschool Project" indicate that those high risk children who take part in preschool programs are less likely to require special education placements later in school and more likely to complete high school and succeed in work than those who do not. A cost benefit analysis in this study concluded that the return on the initial investment was three and one-half times the cost if two years of preschool are provided (Bridgman, 1985).

Follow-up studies conducted in Washington and Colorado (Edgar, McNulty, Gaetz and Maddox, 1984) found that 16% (Washington) to 31.4% (Colorado) of significantly handicapped students leaving preschool programs were placed in regular classrooms with no additional special education services.

An important feature of overall educational reform measures has also focused on child care and early childhood education for "high risk" children. At least 28 states have recently enacted early childhood initiatives, and a growing number of others are considering similar activities. The National Conference of State Legislatures has recently cited early childhood education and child care as the most significant new area of educational legislative activities in the states during 1985. The early childhood education initiatives enacted or under consideration within the states range from programs for 3 and 4 year olds to before and after school care programs and from Head Start type programs run by local community agencies to full-day kindergartens. There are also other states that are instituting a readiness test for admissions to first grade. All but two states (New Hampshire and New Mexico) provide state level financial aid for kindergarten programs. In three states, Delaware, South Carolina and Virginia, kindergarten attendance is mandatory. In at least 15 states, school districts are mandated by the legislature to provide kindergarten programs, but attendance is not compulsory. Legislation for compulsory attendance is pending in seven states. Full-day kindergarten programs operate in 32 states. Funding for all day kindergarten programs is pending in four additional states (Bridgman, 1985).

Current Problems & Issues

Despite the gains made in early childhood education for handicapped or high risk children, problems still continue. Karl R. White assessed more than 2,000 research projects on the efficacy of early intervention for at-risk children and cautioned that findings are not definitive. Existing studies have serious methodological flaws making it difficult to prove whether or not early intervention affects later development (Bridgman, 1985).

Castro and Mastropier (1986) reported findings of 74 early childhood studies. This meta analyis raises some questions about early childhood programs that warrant further research. For example, findings from the analysis of parental involvement suggest that parents can be effective intervenors but that they are not essential to intervention success. These two researchers also concluded that there is little data to support the notion that the earlier the better in starting intervention programs. In fact, there is some evidence that handicapped students who start later do better. There are still unanswered questions about long-term benefits of early intervention.

In addition to the need for additional research, there are insufficient numbers of qualified early childhood teachers and a need for staff development and training. This teacher shortage is compounded by the fact that many related services personnel are not trained to work with preschool-age children.

There is an additional need to expand services to include children from birth through age 2. This, in my opinion, is critical and requires significant interagency collaboration. No one agency can provide the range of educational, medical and social service needs of this population.

Finally, states still lack systematic screening procedures to identify children's developmental problems from birth on. Very few states mandate or support systematic developmental screening. Inaccuracies in assessment result in misdiagnosis at an early age and can have a long-lasting negative impact on the child's self-image and on the child's capacity to learn. On-going assessment instruments linked with curricula are needed. There is also a need for instruments and procedures that assist researchers to determine whether important goals of a preschool program are being met.

While most existing programs provide for family involvement, many of these programs lack breadth and intensity of family involvement. Bailey and Simeonsson (1984) have discussed three needs: "(1) appropriate and relevant models for understanding family functioning; (2) strategies and instruments for assessing family needs and (3) a comprehensive approach for designing and implementing an integrated, individualized program of service for families" (p. 45).

Another problem within the states is the lack of quality day care for handicapped children. Day care programs need additional financial assistance from the federal government, SEA's and other state agencies. Training must also be provided for day care operators regarding the special needs of handicapped children.

Future Challenges:

- Continued interagency planning and implementation of statewide preschool programs and services particularly for those children between birth to three years.
- Enhanced SEA leadership activities such as initiation of program impact studies, development of program standards and guidelines and implementation of refined screening procedures.
- Implementation of statewide strategies to insure a smooth transition from public and private preschool programs to public school programs.
- Continued expansion of preschool measures focusing on child care and early childhood education for "high risk" children.
- Completion of additional research regarding the efficacy of preschool programs including longitudinal studies.
- Exploration of strategies for enhanced parental and family involvement in preschool programs.
- Expanded teacher preparation programs for early childhood education program personnel.

CONTINUUM OF SERVICES FROM BIRTH TO ADULTHOOD - TRANSITION PROGRAMS FOR OLDER STUDENTS WITH HANDICAPS

Accomplishments

With the passage of the 1983 Amendments to the Education of the Handicapped Act, P.L. 98-199, successful transition of handicapped students from school to work, community living or higher education has become a national priority. Funds and support provided by the federal government through P.L. 98-199 and a clear priority of Mrs. Madeleine Will, Assistant Secretary of OSERS, have "nudged" state offices of special education, vocational education, vocational rehabilitation and developmental disabilities to develop expanded transition programs and policies.

The SEA in Massachusetts supported the passage of a law informally referred to as the "Turning 22 Legislation". This legislation set up a Bureau of Transitional Planning to help disabled students move from school to adult social service agencies after they reach age 22. The California legislature has passed legislation to formally coordinate transition planning for handicapped individuals leaving the schools. The Washington legislature is also considering legislation to require the SEA (Special Education and Vocational Education); the Department of Social and Health Services (Vocational Rehabilitation and Developmental Disbilities) and the Department of Community Development to initiate formal state planning for needed transition programs and services; as well as to implement a data mechanism to better follow high school graduates with handicapping conditions relative to effective and smooth transition and needed adult services and employment options.

The Council of Chief State School Officers is currently working with several states including Montana, Idaho and Washington to assist with statewide interagency planning efforts in the area of transition of older handicapped students.

A number of model transition projects and programs are being implemented within each state utilizing state and discretionary funds from the federal government (Title VI-E and Title VI-B). These projects include the development of a more functional high school curriculum, specific and systematic planning for vocational transition and placement into employment, as well as the development of increased employment options.

The Job Training Partnership Act offers additional opportunities for handicapped persons. Seventy percent of these funds must be used for training for jobs in the private sector. SEA's are working with other agencies to plan increased community-based services including employment options, living arrangements and self-care activities. The Federal Supported Employment Initiative has provided resources to states such as Washington to increase paid work opportunities for individuals with severe handicaps.

Current Problems & Issues

Although each SEA is working with other agencies at the state and community level to develop successful transition programs and community-based services for handicapped individuals, a number of handicapped individuals are unemployed after leaving high school. Statistics vary regarding the extent of unemployment rates. The U.S. Commission on Civil Rights (1982) reported that between 50 and 70 percent of all disabled adults are unemployed. A study supported by the SEA in Vermont (Hasazi, Preskill, Gordon and Collins, 1982) and in Virginia (Wehman, Kregal and Zowler, 1984) indicated similar rates of unemployment. In Colorado, the SEA found that 60 percent of recent special education graduates were reported as working, but that there was a high rate of underemployment and low wages (Mitthag and Honiuchi, 1983). A recent follow-up study in Washington State (Edgar, Levin and Maddox, 1985) reported to the SEA that 59 percent of handicapped high school graduates from twelve selected school districts were employed (39%-severe; 50%-sensory impaired; 60%-neurologically impaired/health impaired; 43%-mild mentally retarded and 66%-learning disabled/behaviorally disabled). Certainly an outcome success measure of our educational system is the extent to which our students with handicaps and disabilities are independent, employable and can compete successfully in the workplace.

State Education Agencies are reporting a number of additional problems including an overall lack of information and knowledge within the states as to what post school services are available for graduates with handicaps. There is also a lack of knowledge by post school service staff as to what happens in public schools. Formal procedures are inadequate for "passing" clients/students on to the next service; i.e., transfer of records, procedures for applying for services and procedures for identifying post school needs prior to graduation.

There is also little relationship between the high school curriculum and the response demands in the training sites for post school services. For example, there is a needed match in curriculum between a public school food service training program and a post school food service training program. Vocational planning and training must begin earlier in the child's school program. Most programs begin when the child is 14, 15 or 16. This leaves less than four years to learn a large number of general and specific work skills.

Parents are also critical in transition planning and should be well informed about available services and how to access such services. They also need to be involved in the overall planning of increased transition employment and community services. Our current efforts in the states to involve parents in the transition process need to be greatly enhanced.

An additional problem in the states is that there are simply too few post school services for handicapped students. Colleges, trade unions, vocational technical schools and other post secondary school options very often will not accept our handicapped graduates. There are also inadequate day programs including work activity centers, sheltered workshops, transitional work preparation programs, work crews, enclaves in industry and competitive employment options. Systematic planning of these needed services is by and large absent.

Finally, our data base must be expanded as too little is known about current transition experiences. State Education Agencies can only currently estimate the number of handicapped individuals who make their way into the work force and the number who remain jobless despite current service efforts.

Future Challenges

- Enhanced and expanded interagency planning of existing and needed transition programs and services.
- Exploration of incentives to employers who offer jobs to persons with disabilities.
- Implementation of strategies to increase coordination and awareness between community service providers, employers and the public schools.
- Development and implementation of policies to provide earlier vocational planning and training in the child's school program, as well as policies and procedures to more effectively move students/clients from one service to another.
- Implementation of enhanced parental involvement in the planning of transition programs and services for their handicapped child.
- Development of increased post school services.
- Implementation of an increased data base to systematically follow graduates with handicaps into post secondary programs, day programs and competitive employment.

- Improvement of the high school curriculum so that there is a better relationship with the demands of post school services.

LEAST RESTRICTIVE ENVIRONMENT - INTEGRATION OF SEVERELY HANDICAPPED INTO THE PUBLIC SCHOOLS

Accomplishments

The right of an individual to a free appropriate public education in the least restrictive environment is a major goal and overall accomplishment of P.L. 94-142. In 1983, the U.S. Department of Education reported that more than 92% of handicapped children were being educated in regular schools. A rationale for integrating handicapped students into regular educational settings has been formulated over the past 10 years (Bricker, 1978; Wilcox and Sailor, 1984 and Wolfensberger, 1966). State Education Agencies have carried out a significant agenda to support the increase in numbers of students with severe handicaps educated in settings with their nonhandicapped peers. Rural school districts surveyed by the National Research and Personnel Preparation Project (1980) reported a 20% increase in services to severely handicapped students.

There is a growing agreement among educators that positive interactions between nonhandicapped and handicapped students is important to the overall development and socialization of both groups (Rynders, Johnson and Johnson, 1980). A number of studies (McHale and Simeonsson, 1980; Voeltz, 1982) have demonstrated that increased contact of nonhandicapped and severely handicapped students can influence the accepting attitudes of nonhandicapped students toward their handicapped peers. Emerging studies (Brinker and Thorpe, 1984) have shown that the degree of integration as measured by interaction with nonhandicapped students was a signficant predictor of educational progress for handicapped students.

Current Problems & Issues

Although we have made significant gains with the integration of severely handicapped children into the public schools, there are still a number of separate schools. Many of these schools continue largely because of past practices when parents and educators believed it was not possible for the regular schools to provide educational environments in which children with severe handicaps could learn and thrive. It was assumed that the severely handicapped and nonhandicapped children could not benefit from shared public school experiences. Many of these separate schools exist in undeveloped suburban areas because of the original reduced cost of land. These sites are often isolated making integration with non-handicapped peers difficult. There is currently a lack of SEA policies and intitiatives to systematically reduce the number of existing and traditional separate, segregated schools for severely handicapped children and youth.

There is also a lack of systematic curriculum for severely handicapped students for use in the public schools, particularly focused on needed post-school skills. The practical reality of placement of severely handicapped students in the public schools has also led to the placement of small numbers of these students in rural school districts. Special education teachers working in rural school districts may have more generic training and lack the necessary skills for working with severely handicapped students. Certification standards and teacher education practices need to focus on enhanced training of special education teachers to better deal with these students.

Because severely handicapped students have only recently been integrated into the public schools, the majority of research studies have dealt with mild to moderately handicapped students. Additional research is needed to analyze the academic and social consequences and benefits of integration of severely handicapped and non-handicapped students.

Future Challenges

- o Enhanced efforts by SEA's to disseminate effective and innovative programs which integrate severely handicapped and non-handicapped students.
- o Increased efforts to develop systematic curriculum for severely handicapped, particularly focusing on needed post school skills.
- o Development of policies and initiatives by SEA's to challenge existing separate, segregated schools for severely handicapped students.
- o Support of additional research to study academic achievement, social consequences and benefits of programs which integrate the severely handicapped students into the public schools.

LITIGATION/DUE PROCESS TRENDS

Due process, equal protection, least restrictive environent, procedural safeguards, Brown vs. Board of Education, PARC, Mills--all of these are the underpinnings of P.L.

94-142. During the past decade, the role of the courts has been significant to increase our understanding of the extent and the nature of special education and related services to be provided for handicapped children and youth. The law has been fluid and dynamic with continuing challenges to the SEA's, the public schools and to parents.

State Education Agencies have carried out significant activities in order to facilitate and guarantee the implementation of procedural safeguards. For example, throughout the past 10 years, SEA's have established and refined their structure of local and/or state level due process procedures. An ongoing cadre of due process hearing officers has received training by SEA's. On-going information regarding litigation trends has also bee made available to parents and school personnel by SEA's.

In addition, SEA's have explored the use of mediation as an intervening step prior to a formal due process hearing. Thirty-eight states have implemented mediation procedures because of the continuing concern that many parents are intimidated by a formal hearing. Formal procedures set up a "confrontation" between parents and service providers. In addition, parents may not have the financial resources to pay attorneys and expert witnesses. Parents usually want to resolve issues in dispute quickly to enable their child to benefit from an appropriate educational program. The longer the system of placement is drawn out, the more frustrated parents become.

The nature of legal issues over the past 10 years has changed. In the late 1970's, due process hearings facilitated and carried out by SEA's and local school districts as well as lawsuits across the country dealt with the issue of access and to some extent appropriate programming. Today, litigation and due process issues regarding the appropriateness of an individual child's special education program have expanded to include a range of related services (psychotherapy, catherization, counseling), extended school year programming, suspension and expulsion, residential school placement, testing, least restrictive environment and damages.

Current Problems & Issues

Public Law 94-142 continues to be a very prescriptive law and as such, leads to continuing disagreements between parents, administrators, teachers and other service providers. Because of its legalistic and structured nature, I think, we have tended to allow the courts to resolve differences over the personal IEP needs of handicapped children, as well as procedural safeguards rather than to make needed administrative and programmatic decisions.

For example, the U.S. Supreme Court has provided guidance regarding several issues such as defining a school's obligation to provide related services in the 1984 Irving Independent School District v. Tatro (52 U.S.L.W. 5151) and in defining both related services and "appropriate" education in the 1982 Board of Education v. Rowley (458 U.S. 176). I anticipate that the definition of "appropriate" will continue to be challenged particularly as the impact of Gramm Rudman and other efforts to balance federal and state budgets impact resources available within each state. If Congress passes legislation that would allow the recoupment of attorney's fees to parents who prevail in their administrative hearings or court cases, hearings are likely to multiply around "appropriate" and other issues such as related services, secondary education, institutionalized and incarcerated children and youth, services for severely retarded, extended school year programming, professional liability, the reimbursement of parents for placement of their child in a private school, as well as exit skills and the right to return for compensatory/remedial instruction following graduation. Issues like drug and alcohol dependency and health concerns such as AIDS and Hepatitis are also challenging the traditional notions of special education eligibility.

Procedural safeguards of P.L. 94-142 were designed to protect the rights of handicapped individuals. Implementation of these procedural safeguards within the states has been challenging. A recent study by the National Association of State Directors of Special Education (1985) indicated that, in general, parent leaders and SEA special education directors both viewed these provisions as positive and the current safeguards as sufficient. Parent leaders, however, felt that while they were acceptable in theory, some of these provisions continued to be vague and did not insure that handicapped individuals received an appropriate program. This survey suggested that parents may still not be well-informed about the procedural safeguards of federal law.

Studies regarding the benefits of due process hearings such as that by Kirst and Bertken (1981) emphasized concerns about parents' ability to pay for an attorney and expert witnesses. This study indicated that minority and low-income parents used the hearing process less often than other parents with higher income levels. This study also showed that once parents participated, post hearing resolution of issues was inversely related to income status. Continuing research is needed by SEA's to monitor the impact of due process hearings and other mediation procedures.

Future Challenges

- Continued exploration by SEA's of mediation procedures as an effective way to resolve differences between the parents and the school regarding needed special education and related services for their child.
- Expanded parent training supported by SEA's to enhance awareness and dialogue about the procedural safeguards of P.L. 94-142.
- Additional monitoring of the types of parents accessing due process hearings in relation to the number and types of overall disputes.

SPECIAL EDUCATION MANPOWER

Accomplishments

As the population of handicapped students has grown, so has the number of special education and related services personnel. The total number of special education teachers across the states has increased from 179,804 in fiscal year 1977 to 241,079 in fiscal year 1983. Related services personnel have also increased from 151,649 in fiscal year 1977 to 224,684 in fiscal year 1983 (U.S. Department of Education, 1985).

Dunn (1986) reported that a total of 698 colleges and universities provided programs for the preparation of various special education and related services personnel during 1982-83. In fiscal year 1985, $61,000,000 in federal funds supported 880 grants awarded to colleges, universities and SEA's in order to increase the quantity and quality of personnel serving handicapped children (Dunn, 1986).

All SEA's are making systematic efforts to upgrade the skills of regular and special education personnel working with handicapped children. Most SEA's utilize a portion of their EHA-B set-aside monies for inservice training activities, leadership conferences and other technical assistance strategies to upgrade the skills of personnel working with handicapped children. In addition, there have been a number of changes across the states in certification practices for special education and related services personnel.

Current Problems & Issues

In order to fully implement state and federal laws pertaining to the education of handicapped children, an adequate supply of special education teachers, administrators and other personnel must be available. The American Association of Colleges for Teacher Education (1983) reported that the overall supply of teachers produced annually was already four percent short of supply. The greatest shortage areas included special education. Demographic information available to us suggests that by 1990, the number of 18-year-olds will be .8 million fewer than in 1980. (National Center for Educational Statistics, 1983). Thus the pool from which teacher education can recruit students will be reduced. At the same time, the number of preschool and elementary school children will increase.

Shortages of special education manpower are becoming a reality. **The Condition of Education** report (1985) stated that "certain subject fields had higher vacancy rates than did others. Positions for bilingual special education teachers showed the greatest proportionate shortages in the public schools... Special education teachers of speech impaired pupils were the next highest group reported in short supply in the public schools... (and) similar shortages extended to other special education fields, including teachers of severely emotionally disturbed students" (page 138).

Another complicating factor with the need for an adequate supply of new special education personnel during the next decade is high attrition. Attrition rates for all teachers is estimated at 6 percent annually (National Center for Educational Statistics, 1983 and 1985). Attrition rates in special education are higher. A 10-year special education manpower study conducted in Idaho (Schrag, 1979) indicated special education teacher turnover or attrition rates of between 41-44% every one to two years. Other studies have indicated that the turnover rate for teachers of behavioral disabilities is up to 53% of teachers leaving within the last five years (Groesenick and Huntz, 1981). Among teachers of the severely handicapped, the burnout rate may be as high as 30 percent every three to four years (Smith-Davis, Burke and Noel, 1984). In Washington state, school districts report to the SEA that they are unable to recruit sufficient numbers of school psychologists, physical therapists and occupational therapists during the current school year. The ACRES project reported (1984) additional personnel concerns in rural areas. Average salaries of teachers in rural areas are about 24% less than the average for metropolitan area teachers.

Misassignment is also a current issue among SEA's. Solutions for teacher shortages in special education by SEA's include the issuance of emergency certificates. A 1982-83 national survey by the University of Maryland showed that up to 30% of special education personnel in some areas were working without adequate preparation or experience (Smith-Davis, Burke and Noel, 1984). The use of emergency certification will continue to be a national concern.

Certification practices within the states vary. On the one hand, a generic certificate can provide flexibility needed in rural settings in which small numbers of various low-incidence handicapped children are enrolled. On the other hand, teachers with generic skills find it difficult to meet the specialized needs of deaf, blind and severely handicapped students. Special education teachers in rural areas must handle students across multiple grades, as well. Because of the shortages of physical and occupational therapists particularly in rural, small school districts, special education teachers find themselves providing a variety of "quasi" therapy services. Pre-service training preparation programs often do not provide training in diverse roles necessary to implement the range of services needed by handicapped children.

There are additional concerns about pre-service teacher preparation programs for regular education teachers. As states implement strategies to modify the current categorical mindset to refer students with mild learning problems to special programs and emphasize alternative pre-referral options, regular education teachers will need additional pre as well as inservice training to better deal with student diversity. The role of the school psychologist is also changing from a diagnostician to that of working with teachers and students. This also has challenges for pre and inservice training programs. Many school psychologists report they do not feel comfortable moving into this changing role because their preparation programs did not provide the necessary skills to work with regular educators. Pre-service preparation programs have not provided adequate regular education training for various special education and related services personnel. Pre-service preparation programs for regular educators, likewise, have not provided sufficient special education training. Needed partnerships between regular education and special education to better deal with students with mild learning problems will, therefore, be complicated by the lack of cross training and awareness by regular and special education/related services personnel.

Future Challenges

- Completion of on-going research by SEA's regarding supply and demand issues of special education, related services and regular education personnel working with students with handicaps.
- Review of current and needed certification practices by SEA's particularly related to education of severely handicapped students and special education students enrolled in rural school districts.
- Implementation of pre and inservice training strategies by SEA's, colleges and universities and school districts regarding changing roles needed to implement pre-referral intervention for students with mild learning problems within the regular classroom.

MONITORING OF SPECIAL EDUCATION PROGRAMS/RELATED SERVICES

Accomplishments

State Education Agencies have implemented state monitoring systems to systematically review special education programs and related services within local school districts. Likewise, the federal government has also implemented procedures to monitor SEA's implementation of P.L. 94-142. These SEA monitoring procedures have changed from a review of the implementation of the parameters of P.L. 94-142 (IEP's, parental involvement, procedural safeguards, etc.) to an increasing emphasis on the quality of programs provided. Self-monitoring and sample monitoring strategies are currently being initiated along with full monitoring procedures. In addition, SEA's are attempting to enhance their monitoring procedures with a pre-monitoring/technical assistance phase. The Washington SEA has implemented such a system during the 1985-86 school year as a way to "teach to the test" and an attempt to de-emphasize compliance and increase the technical assistance component of monitoring.

Current Problems & Issues

State Education Agencies continue to be concerned about the over-emphasis of their role on compliance and "policing" versus a "helping" technical assistance role. The majority of SEA's continue to have insufficient staff to carry out monitoring as a separate function from technical assistance/training. The conflict between the "black hat/white hat" role continues. In addition, lack of available monitoring staff has prompted self-monitoring and other abbreviated procedures in order to carry out a number of other administrative, technical assistance, training and research functions. Sufficient monitoring of school district programs will continue to be important as there are signficant challenges--some of which have been discussed in this paper. Insufficient SEA personnel to adequately carry out statewide monitoring of special education programs and related services will become exaggerated if federal budget cuts are imposed by Gramm-Rudman are realized. A large number of SEA personnel across the country are supported by federal Title VI-B administrative funds.

Public Law 94-142 places the SEA as the lead agency to monitor and oversee the quality of programs for handicapped children provided by other agencies. Jurisdictional issues continue to be a problem and limit the extent to which changes can be made in programs not within the legal authority of the SEA. This is particularly the case as SEA's are working with their counterparts in Departments of Correction for incarcerated youth.

Future Challenges

- Continued implementation of sufficient state and federal monitoring of statewide programs and services provided for children and youth with handicaps.
- Expanded interagency collaboration of quality programs and services for children and youth with handicaps, particularly those in residential programs and incarcerated in juvenile detention centers, neglected and delinquent institutions and the prisons.
- Development and implementation of alternative monitoring procedures with "tightened" federal and state resources to support SEA monitoring personnel.

PROGRAMS FOR GIFTED STUDENTS

Accomplishments

During the past ten years, there has been growing support by State Education Agencies to recognize the needs of gifted students. As of 1981 (Kissick, 1981), all but five states had passed legislation that specifically addresses the education of gifted students. Currently, twenty-one states mandate school districts to provide services to these students (O'Connell, 1986). During fiscal year 1981, appropriations ranged from zero to $18 million--twenty-four states appropriated $1 million or more for gifted education, and seven states spent more than $5 million (Kissick, 1981). In fall, 1985, twenty-one states reported funding levels for gifted education over $15 million (O'Connell, 1986).

A number of SEA's fund inservice training activities for teachers of gifted children or partially reimburse local districts for the costs of personnel who provide technical assistance related to programs for the gifted. All state education agencies have at least a part-time person to carry out state leadership for gifted programs. Fourteen states currently require special certification for teachers of gifted students (O'Connell, 1986). Ongoing state leadership activities have included development of program guidelines, support of pre and inservice training for personnel working with gifted students, development of screening and evaluation procedures, formation of school/business partnerships networking of best practices across school districts, curriculum development, parent training and monitoring of local school district gifted programs.

Commitment for gifted students in the Washington State Education Agency began in 1961 with passage of the first authorizing legislation and appropriation for gifted programs. In 1975, a state plan for gifted students was developed. The State Basic Education Act of 1977 recognized gifted students within its definition. In 1984, the Washington legislature re-emphasized its commitment for gifted students and provided enhanced funding for up to 1% of each school district's student population. Washington State participated in the federal funding provided between 1974-1980. These funds were utilized for state planning, model project development, leadership training and information clearinghouse activities. State leadership has continued in Washington in all these areas.

During the past two years, new initiatives for gifted students have been the focus of educational reform measures. At least 35 states have implemented programs such as magnet schools, residential schools, summer camps, concurrent university/high school enrollment programs, honors programs and overall increased funding (Education Commission of the States, 1984).

Current Problems & Issues

Despite the efforts made by Washington and other states throughout the country during the past decade, it is my opinion much work is yet to be done to make gifted education a national and a state priority. Gifted programs are still inadequately funded. Across the states, definitions of gifted students vary greatly as do the proportions of the school population to be served. State education agencies have not adequately dealt with teacher certification requirements for personnel working with gifted students. Pre and inservice training programs continue to be limited. In addition, there is limited research regarding the efficacy of various types of gifted program models (acceleration, enrichment, counseling, special honors programs, advanced placement, mixed ability classrooms, regular education options, etc.).

Identifying gifted chlidren from minority groups has also posed a challenging problem. Standardized testing procedures are fraught with inconsistencies when applied to minority populations and across socioeconomic values. In addition to research and the development of appropriate theoretical concepts in gifted minority children, there is a need to develop and share appropriate curriculum strategies for these students.

Future Challenges

- Enhanced SEA leaderships activities in gifted education including support of improved pre and inservice training.
- Development of improved screening and identification procedure with emphasis on implications for cultural and ethnic differences.
- Increased SEA supported research on the education of gifted students.
- Increased state funding for gifted programs.
- Renewed federal leadership in gifted education to support research, demonstration and training programs.
- Enhanced school/business partnerships

- Enhanced SEA technical assistance to school districts in the implementation of programs for gifted students.
- Implementation of initiatives to increase the numbers of persons entering the field of gifted education.
- Continued study by State Education Agencies and State Boards of Education to address teacher certification requirements for personnel working with gifted students.

SUMMARY

This paper has highlighted several key features of change within the states that have been the focus of State Education Agencies since the passage of P. L. 94-142 in 1975. Accomplishments, as well as current problems and future challenges for the next decade have been discussed within the context of access to education, early intervention, transition, integration of severely handicapped into the public schools, litigation/due process trends, availability of trained personnel, monitoring and programs for gifted students.

The ongoing need for adequate funding was not treated as a separate topic. Federal funds continue to comprise approximately 5-8% of the costs of special education and related services within the states. Public Law 94-142 within its authorization language indicated that a sizable percentage of the costs of special education would be assumed by the federal government. Instead of the promised 40 percent of the average per pupil cost by 1982, however, the percentage of federal funding reached only 12 percent of the average per pupil cost (Weintraub & Ramirez, 1985). Continued efforts to balance federal and state budgets such as Gramm-Rudman will limit the growth in future fiscal resources.

Despite this continuing financial challenge ahead of us, it must be said that during the past decade there have been dramatic improvements in the lives of children and youth with handicaps as well those with gifts and talents. Much program development has occurred.

The next ten years promise to bring a whole host of program adjustments, refinements and enhancements. Regular and special education partnerships will solidify and these often parallel programs including other support services will become more integrated amd unified. Enhanced programs will be developed for unserved and underserved groups of handicapped students. Progress will continue to be made in implementing a smooth continuum of services from birth to adulthood. Effective integration of severely handicapped students into the public schools and into society will be emphasized. Procedural safeguards will be maintained for handicapped students and their parents; however, efforts will continue to reduce the legalistic nature of our current special education system. This will be complicated by reductions in programs because of federal budget cuts. On-going research will be carried out in a number of areas including the efficacy of early intervention, follow-up of special education graduates and ways to train and retain qualified special education manpower. State monitoring of special education programs will have an increased emphasis upon technical assistance. Programs for gifted students will be continued and enhanced. The past emphasis on access and process in special education will be replaced by issues of quality and outcomes.

As a State Education Agency administrator, I am excited by the progress made to date in special education. There is, however, a significant, challenging and unfinished agenda to fully carry out the promises of P. L. 94-142 and companion state special education laws.

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Special Education in a Small School District: Past, Present, and Future

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The Kyrene School District is an elementary district serving kindergarten through eighth grade students in rapidly-growing suburban Phoenix, Arizona. Kyrene currently serves approximately 5,000 students residing in five municipal or governmental divisions, including the Gila River Indian Reservation. There are six elementary schools and one junior high school in Kyrene, and two new schools are scheduled to open next fall to accommodate an annual growth rate of almost 25 per cent. Kyrene is an ethnic and socio-economic mix, including Anglos, Hispanics, and Native Americans.

Ten years ago, roads into the Kyrene School District were narrow two-lane ribbons of pavement frequently banded on each side by an irrigation ditch and rows of heavily bearded palm trees. Continuing south, concrete yielded to flat dust and gravel roadways punctuated regularly by humped crossings over the ditches. Cotton fields basked in the dusty sunshine, and fluffy white sheep grazed with no sense of the explosion to come as Phoenix would begin to leap south in future years.

In the northernmost two miles of the district, eager suburbanites and retirees had begun to stretch out into the countryside away from grocery stores, stop lights, and fast food restaurants. Ancient-looking red stucco and brick district office buildings stood on a tree-bordered campus buffered between a dairy and a stable.

The suburbanites were in the minority ten years ago. They were welcomed into a Kyrene long populated primarily by farmers and farm workers. Ethnically there was a mix. Anglos and Hispanics outnumbered Native Americans, the majority of whom journeyed to Kyrene daily from remote communities on the Gila River Indian Reservation.

Special education for handicapped and gifted students was relatively new in Kyrene. Its planning, design, and implementation resulted from response to forces that were consistent realities for small districts all over the country.

In what follows, I have attempted to label and address what I believe were the significant forces within special education ten years ago, to trace the impact of those forces over the past decade, and to describe how those same forces have evolved to provide current and future challenges and opportunities for the field of special education in small districts.

Change from outside A first force affecting special education in the early 1970's was externally prompted change. Change was being brought rapidly from outside the field. Special education as it exists today in the public schools was molded by external forces. Handicapped children were, in effect, defined by the courts as a minority group which had been denied its right to access public education. The prime movers in this drive for service were parents divided into categorical camps, not public school professionals.

Categorical focus The external forces that created handicapped children as a minority group also, I believe, created a second force which continues to have a profound impact on the field of special education. This early group of largely non-educator change agents, i.e., parents, courts, attorneys, etc. viewed handicapped children as minorities by virtue of their defects, i.e., mental retardation, learning disability, hearing impairment. These defects became the focus of categorical definitions, identification processes, and remediation efforts imposed on the schools.

Rules, regulations, and funding formulas at the federal and state levels were designed categorically. University training programs prepared teachers for categorical certification. We were, in essence, mandated into a defect orientation. School psychologists were assigned a prominent role in this mandated special education. They were given the task of verifying children's defects. Verfication enabled service. Remediation techniques billed as therapeutic were developed that promised impact on or even cure of the defect. Such techniques offered parents repatterning of a child's brain or restructuring of defective sensory motor integration. In the areas of sensory and physical impairments, children were identified, labeled, and served together in schools by virtue of their defects rather than characteristics of their educational performance.

Within the field of emotional disturbance the search for the defect was a long, costly, and continuing one. Treatment mode depended on belief regarding etiology or the nature of the defect. Physiological, psychoanalytic, behavioral, and ecological camps formed and remained. Gifted education translated the definition of category by defect into the definition of a category by status rather than learning characteristics. Students with a high general intelligence or creativity score were placed together without consideration for differential ability in verbal or quantitative reasoning areas.

Early spirit Special education in the schools a decade ago, then, was supported by a mandate and defined by a focus on children's defects. A third force in evidence a decade ago within special education was a sort of spirit of missionary zeal among parents and some professionals. Parents had focused on the ultimate goal of access, and they had won the battle. They saw access to schools as a sort of panacea, the end rather than a means to another end.

Parents were joined in spirit by a rapidly growing cadre of newly trained young professionals and by a hopeful group of long-enduring dedicated professionals who saw the mandate as a great promise for the future. Among both handicapped and gifted groups, Child Find efforts were pursued as a kind of crusade to find the unserved or underserved.

These were heady times. The blush of victory gave sanction to the mission. Special education promoted itself as a sort of Statute of Liberty profession..."give us your tired, troubled children, and we will cure them."

The mandate required a free, appropriate, least restrictive program for all handicapped students. The defect orientation promoted the move to categorical programs, means of identification, and funding. Parameters of the effort beyond categorical access were at this point poorly defined, however. The search for a technology that would empower the field to fulfill the mandate's intent was only beginning.

Search for definition The proper mesh of categorical definition and identification with educational technology was unclear. What was "special" about special education had yet to be defined. This lack of definition and the beginning of a search for viable technology was a fourth force within special education ten years ago. Teachers within districts, professionals within the field, and faculties at the university level disagreed over what technology would work. Data was slow in coming and not always widely reviewed when it was available. Splits formed between those focusing on defect remediation and those aiming directly for skill acquisition. Professional schisms occurred between school psychologists and teachers. Psychologists found defects that teachers could already see and sometimes documented lack of progress, but psychologists frequently weren't trained to assist in designing/implementing effective programming. In the area of gifted, advocates of enrichment split from advocates of acceleration. Parents found inconsistent and differently defined categories and services between states and even districts within states. Special education presented an indecisive and quarrelsome front to its many publics.

Special educators in the early days of the mandate were a mixed group in terms of their beliefs about appropriate technology. They were also a mixed group in terms of competence, training, and qualifications. Districts caught unprepared for the mandate sometimes responded by placing teachers they wanted to get rid of in special education classrooms. These teachers taught alongside highly competent, dedicated old-timers and bright, eager well-trained newcomers.

Limitation of financial resources All other forces within special education ten years ago were controlled to some extent by a final force: limitations of financial resources. The federal money provided was designed to offset the excess costs of educating handicapped students; however, it has never been sufficient to do so. State monies, too, have lagged far behind reality. Districts have been left in the position of taking money away from nonhandicapped children to provide for handicapped children.

Kyrene responded to these forces in ways similar to many other small districts. It served grades kindergarten through eight and had fewer than 1,000 students, of whom perhaps 50 could be called handicapped. Another approximately 100 were labeled gifted. This number was high because of the identification process used at the time. The 50 were almost all mildly handicapped. Because of the smallness of the district, they were all served in cross-categorical resource rooms. This was most cost effective and seemed to meet the intent of the law. Little direction was given, however, to the type of service delivered in the resource rooms or its mesh with regular classrooms. Access, least restrictive environment, and affordable costs were primary considerations. Severely handicapped students were tuitioned to neighboring Tempe, which had established a segregated school for severely handicapped students. Gifted students were served by an enrichment pullout two half days per week. There were special education and gifted coordinators.

During the past decade, Kyrene has grown by more than 500 per cent. It has increased by approximately 25 per cent each of the last four years. It has added five new schools and will continue to add one or two new schools each year. The sheep and cotton fields have moved much farther south, displaced seemingly overnight by subdivisions, shopping centers, and light industry. Stop lights dot almost every corner, and traffic backs up during pronounced "rush hours." The red stucco and brick buildings of the district office endure on land that becomes more valuable yearly. Repair costs have increased but don't detract from bonding capacity needed to build new schools. Large areas of open land nearby are being claimed for development, contributing as many as 13,000 homes each.

Kyrene, during this period of rapid change, has continued to respond to forces that are similar to those responded to elsewhere and also that are logical continuations of the forces at work a decade ago. Within this time special education here and in other small districts has changed more from within than because of external forces. The nature of this change, I believe, has been movement toward increased definition as a data based field capable of producing learning in hard to teach students.

Change from within/Definition of a field Even in the flush of a mandate victory ten years ago, deep disagreement existed within all levels of special education concerning what was "special" about it. In the years that have followed the field has produced/maintained highly competent, dedicated professionals who have become, in many cases, "the cream of the public school crop." These people correctly see mandated access as only a beginning and learning as an end. They have become increasingly analytical about their students' educational needs and their own instruction. They have been empowered by research about effective instruction to become data-based decision makers on behalf of their students.

This increasingly specific scrutiny of the "what" and "how" of special education has begun to focus critical and questioning attention on some of the directions chosen by the field ten or more years ago. First of all, the defect or categorical orientation has proven to be a less than ideal basis upon which to identify students and design educational interventions. There has been little data showing defect remediation methodologies to impact on educational performance. Effective methodologies are effective across categories or "defects" and with nonhandicapped as well as handicapped learners. Emerging data has shown effective strategies to respond through focused instruction to learning characteristics and skill deficits of handicapped students.

Other mainstays of mandated special education for mildly handicapped students have also failed to live up to their promise. Categorical pullout programs have proven redundant, and self-contained classrooms in many cases have failed to produce academic gains commensurate with their expectations.

Recent research shows special education pullout in many cases to result in decreased actual instruction and practice time in areas targeted for remediation. A smaller quantity of instructional time has been made even less valuable by special education's frequent use of different curriculum objectives and materials than the mainstream classrooms. It seems that in our efforts to provide "special" we've often designed a program that was less intense - in terms of instructional time, practice time, and consistency of objectives and materials - for our hard to teach students than for our nonhandicapped regular classroom students. Three-year re-evaluations frequently attest to the weakness of our efforts.

During the past ten years special education has gathered the evidence needed to make viable a shift from a defect remediation/categorical model to a data-based instructional intervention model designed to serve all hard to teach students. A parallel movement has occurred within regular education in the form of newly-focused attention on characteristics of effective instruction and effective schools.

Very recently the boundaries between regular and special education have begun to fade as it has become increasingly clear that effective instruction is effective for all students. What's special about special education is the added intensity it can provide for students who are hard to teach for any of a variety of reasons from a sensory impairment to a developmental delay. In the area of gifted education focus on enrichment vs. acceleration seems to have decreased, and attention to students' needs for academic instruction beyond what can be reasonably provided within the regular classroom has increased.

We are on the threshold, I believe, of being able to apply what the last ten years of evidence has told us about what special education should and shouldn't be. We have seen a shaping of the field from within and a clearer, more analytical look at how exceptional students can best be taught. Focus on defects and categories has begun to yield to data-based instructional decision making with a goal of most intensive intervention possible with least intrusion.

Special education demythologized As special education has gained an increasing sense of technological definition, the early theme of missionary spirit and oneness with parents has been altered and to some extent eroded. The early panacea promises have not been fulfilled, and as special education has struggled to define what will work, parents have seen the field demythologized. In many cases parents have maintained a categorical or defect-oriented viewpoint. They are sometimes supported in this view by physicians, psychologists in private practice, allied professionals, and private school personnel. Rather than focusing on types of service needed because of a child's learning characteristics, they look at types of programs for "children like Joey." In many cases we have not been successful in educating parents and related professionals outside education to analyze children's needs and available programming resources from an instructional focus, i.e., "What services are needed so that instruction can be most intensified with least intrusion in meeting this child's needs?"

Continuation of financial limitations A final force continuing from the past is the limitation of financial resources. This remains as a given with which all small school districts must cope. In private enterprise competition is generally with outsiders, and the process of competing builds esprit de corps within. In education the reverse is true. Competition for money - survival - is from within, and the process of competing creates divisions within the organization. This is especially painful in small organizations. Handicapped and gifted children, as minorities, are in perpetual jeopardy. With no increase in state funding, a probable decrease in federal assistance, a push to increase teachers' salaries, higher utilities, insurance costs, etc., the continuing problem seems clear. Special education must be able to provide documentably cost-effective services for its members in order to survive.

The Kyrene District, more than ten years ago, made decisions about special education that were based partly on humanitarian feelings that handicapped children needed to be in the mainstream and partly on practical logic that cross-categorical resource rooms were the least costly and most flexible way to provide services. The fact that categorical, self-contained programs were not begun was serendipity that gives Kyrene great opportunity as a small district to provide flexibly for great diversity in the future. To some extent, Kyrene as a small district was unable to make a choice to follow the trend toward categorical programming, and, as a result, remains today somewhat better poised for the future.

Kyrene's special education program today is a somewhat unusual one. Its stated goal is to assist in providing an appropriately intensive instructional program for all hard to teach students, with the least possible intrusion into the regular classroom, through shared responsibility for these children between regular and special education. The model is called Resource-Consultative. Resource teachers at each school provide direct services to identified - and in some cases nonidentified - mildly handicapped, sensory impaired, and physically handicapped students during 80 per cent of their time. They spend the other 20 per cent of their time working consultatively as peers with regular classroom teachers to analyze problem situations, plan program changes, and implement appropriate interventions with any hard to teach students. The consultation process is initiated by classroom teachers who make a "referral for assistance" to their Resource teachers. Psychologists assist in problem-solving efforts prior to eligibility consideration, using assessment and observation information as a contribution to data-based decision-making rather than verification of a defect. School site Child Study Teams, composed of regular and special educators, assist the consultative process by providing help with problem solving, authority for decisions, and mediation for disagreements. One extended resource room each, at the elementary and junior high levels, provides a more restrictive environment for a small number of students who are less able because of a combination of academic and behavioral difficulties to function in the mainstream. Neither class has ever had more than eight students at any time. Severely handicapped students continue to be tuitioned to a nearby Tempe school because of low incidence. Kyrene's percentages of placed students are somewhat lower than demographically similar nearby districts, and in numerous cases, children moving into Kyrene who have been enrolled in self-contained special education classes elsewhere are mainstreamed successfully with Resource support.

Gifted students in Kyrene are indentified in the areas of verbal and quantitative reasoning. Beginning in grade three, they receive programming separate from regular classroom instruction in Language Arts if they demonstrate the need. Differentiation of math instruction is provided by grouping within regular education.

The groundwork for future response to challenge and opportunity is already being prepared in Kyrene and elsewhere. The response here as in other small districts nationwide is based upon our path for the past decade or more. Situational dynamics, knowledge and purpose, and serendipity have worked together to generate the current state of the art in special education. As our awareness of ourselves and our field as it could be continues to grow, we must make knowledge and purpose the controlling partners in determining the future. We need to set goals that will enable us to bend situational dynamics and luck to fit our purpose and what we know to be appropriate for our students.

In order for special education to purposefully apply what we've learned over the past decade or more, to continue to learn, and in so doing, fulfill past promises, there are a number of challenges that must be successfully met.

Need for continued growth/education First of all, special education must continue to change from within. It must continue to conduct research, and it must respond in a timely manner to weight of evidence about what to teach and how to teach handicapped and gifted students. We must do a more efficient job of disseminating useful information to those in the field. In small districts it is sometimes difficult to allocate limited manpower to search current literature. Teachers attempting to remain current with the literature are often discouraged by the enormous quantity of non-significant research published.

In addition to educating ourselves to change, it is essential that we attempt more successfully to educate parents and allied professionals about the potentials and realities of special education. Noneducators who could analyze problem situations or needs and resources from an instructional or educational viewpoint would be a tremendous asset to us. We need to continue to change in response to evidence about effectiveness, and we need to take parents and other professionals with us.

Need for Cost Effectiveness A second reality/challenge that will continue to determine our course to some extent is the anticipated continued limitation of financial resources. Many facts contribute to this reality in small districts like Kyrene. First, there's a possibility of less money available because of federal, state, or local reductions. Second, teachers' salaries are likely to consume an even greater proportion of available money in the future. Third, school districts are asked to do more and more with little added money. In Arizona, for example, Bilingual and English as a Second Langauge programs were mandated with no additional funding provided. There is a current push for after-school latch key programs.

Fourth, in addition to additional tasks coming by directive, some tasks have expanded because of situational variables. In districts like Kyrene the tremendous growth has unavoidable costs. Time must be spent training and enculturating new staff at all levels. Much staff time is spent evaluating and responding to the needs of students new to the district. The rapid growth seems to be accompanied by increased mobility of families. This means that time spent evaluating and responding to needs must be repeated frequently per special education slot. Another significant situational variable seems, from my vantage point, to be a necessity of dealing with a higher incidence of family problems that impact on school functioning as well as a growing frequency of serious child and adolescent emotional/behavioral problems.

Fifth, an increase in immigration nationwide has placed a burden on the financial resources of schools. For districts, especially small ones, the effort to meet the needs of very low incidences of children from very diverse backgrounds is taxing in terms of money and staff time.

Sixth, the number of low incidence and/or medically fragile children seems to be increasing for a variety of reasons. These are children whose needs are great, and their impact on the financial resources of a small district are tremendous. Costs can become almost surreal in the case of a rural district that must provide a program rather than pay tuition to a larger nearby system.

All of these factors may contribute to even greater financial limitations in the future than we now experience. The limitation is a challenge we must accept and become better prepared to meet.

Perhaps the most appropriate response to potential financial limitations is increased definition of the field according to what works. We must be as cost effective and efficient as possible. We have a lot of evidence indicating correct directions for us to take. We have the opportunity to change according to what works. The challenge is great. If we succeed, we will at last have defined our field on behalf of those we serve. If we fail, I believe we risk malpractice suits brought by noneducators who have waited for us "to get our act together," and we risk severe cuts in funding because of lack of evidence of effectiveness.

The challenges to change in response to weight of evidence will necessitate renewed consideration of our purpose or our "why," our technology or our "how," and our content or our "what."

The "why" of special education has historically seemed clearest. We were directed to provide free, appropriate, and least restrictive services. We need, I feel, to add a further "why" at this point of looking into the future. Our expanded "why" needs to be that we must share responsibility with regular education for best using all of our resources on behalf of all of the students.

Changes in service delivery This expansion of the "why" opens the door to a lot of rethinking abut "how" services should be delivered. It points to a merging of categories when the technology is the same. This merging would impact on definitions, identification procedures and criteria, funding formulas, university training programs, and teacher certification. Services should be delivered to those children who need those services regardless of why they need them. Their reasons for needing services are important only as they affect or require adaptation of delivery of those services. Teachers could be trained in generic content and instructional technology with practicums designed to prepare needed specialties like feeding, positioning, and mobility training. These kinds of changes would obviously require significant alterations on the part of universities, state departments, and local education agencies - all bureaucracies not noted for rapid change potential.

In addition to merging of the categories, a commitment to shared responsibility for all students provides the opportunity to merge the technologies of regular and special education. Evaluation, planning, instruction, and management skills are necessary in both fields. The technology is the same. Special education has an opportunity as it faces the future to take responsibility itself for abandoning the mythological methodologies of the past that unsuccessfully attempted to set special education apart qualitatively. We have the opportunity to define ourselves as quantitatively different. We are special because we provide an intensity of instruction that regular education can't because of group size and heterogeneity. We can intensify for hard to teach students, including gifted, by small group instruction, added drill, etc.

As we merge categories and technologies, we need to redefine the role of school psychologist. Rather than serving primarily to verify defects, the school psychologist should become a problem solver, freed from an eligibility determination process. Training programs in school psychology should prepare graduates to analyze children's problems and also analyze curriculum and instructional resources. Unless psychologists can develop this ability to analyze resources, I believe they will be trapped in a defect model and are likely to become extinct, victims of limited financial resources. Psychologists have great potential to be skillful peer assistants. They have a synthesis of the student's educational history and current status. Their information is drawn from multiple sources. They have an opportunity to evaluate the student across a variety of settings using numerous assessment instruments and observation procedures. They are in a unique position to analyze and summarize a student's performance and progress. They are in am ideal position to help plan if they can analyze curriculum and instruction. This change in focus, like the earlier ones mentioned, requires dramatic movement within a group where the need for change seems less than widely accepted or recognized.

Changes in curriculum In addition to the attention given to needed changes in "how" special education services are delivered, I believe that it's incumbent upon us to take as part of our challenge for the future to look at "what" our curriculum will be. Using the premise that special education will be quantitatively and not qualitatively different, our first effort needs to be to identify ways to provide more intensity and engaged time while keeping the same curriculum objectives as regular education whenever possible.

Some curriculum changes are needed, I believe. We need in many cases to do a better job in the future of analyzing and providing appropriate curriculum objectives. For example, there are objectives in most regular curricula that should be omitted. Handicapped students are frequently held accountable for academic objectives which have little meaning for them. More handicapped students would be able to master essential "regular" objectives if they had the additional time to devote to them that they're now spending on nonessential objectives. Curriculum analysis could solve this problem.

A second and urgent need in the area of special education curriculum is to add a strong focus across content areas and levels of severity on the teaching of learning strategies. We are frequently graduating hard to teach students who have not generalized new learnings across settings, i.e., who are unable to apply what they've learned. They recall content, but can't determine when to retrieve or use it. Without adding this focus to our curriculum we have no hope of creating independent learners able to function in society. Current research has shown the incredible power and efficiency of strategy instruction for hard to teach students. We need to apply its findings.

A third target for change in special education curriculum is a need for increased focus on content areas, for example social studies and science, that are outside the realm of basic skills. We sometimes pull students out of social studies and science for so many years for help that they leave school without essential general information about their community and the world around them. We have, by omission, made them more handicapped for life as a result of our intervention. This could be changed by incorporating strategy instruction into basic skills content and using social studies and science texts for application practice. Districts would need to identify strategies to be taught and then analyze and integrate basic skills, social studies, and science objectives.

Our curriculum focus within special education has, in many cases, been too narrow-minded in another way. We have targeted academics at the expense of teaching for leisure or vocational skills. This focus must be broadened if we are to alter the depressing current information about our students' status as adults.

As a final thought about curriculum, our regular curriculum may need to be analyzed to insure that we're teaching our non-handicapped students a commitment to global human interdependency that is-sufficient to guarantee continued care for all people and an adequate world in which to live.

In summary, the challenge grows. We may have less money in the future, but we have the knowlege potential to be much more efficient and effective than in the past. Our potential can most likely be realized, however, only if we make some reasonably significant changes in what we're doing and how we're doing it. Change must occur at all levels: university, state department, noneducator, school district, classroom. The challenges indicated are big ones that will demand a significant commitment of resources. Small districts may be particularly hard hit by the drive for quality with limited staff and money to get there.

A logical response to the need for change in the face of limitations of resources would seem to be a unification of efforts from all levels within the field. If needed changes are to be accomplished, I believe that university, state department, and public school personnel must plan, design, and implement in coordination with each other and with allied professionals and parents. Partnerships for change must be equal, however. In past years, state departments and universities have changed compliance procedures and certification requirements, for example, without public school input, or, in some cases, input has been requested that didn't address the critical attribute of the issue at hand. Those most responsible for the delivery of services, i.e., public schools, have been given least control over teacher training, compliance, and funding parameters. In most cases, small school districts have been afforded the opportunity to participate in decision making even less than large ones.

Need for competent personnel A final challenge facing special education is likely to determine the outcome of all those discussed before. That is the challenge and necessity of continuing to attract bright, dedicated people into education and special education. Despite current attention to higher pay for teachers, adequate compensation and improved professional status for teachers is far from a reality in most places. Especially in small districts the struggle to find and keep competent, intelligent teachers is difficult and time-consuming. We also need to insure the quality and competence of those training teachers and those providing the field with research findings.

As I look back over the last ten years in Kyrene and other districts like it all over the country and beyond, I have a sense of pride about how much we've learned and the sincerity of our efforts. We haven't become a panacea; however, we have greater potential than a decade ago to fulfill the intent of our mandate - if we can apply what we've learned, continue to learn, and successfully share new knowledge. In order to meet our challenges we must unify effort across all levels of our profession. We must attract and enculturate competent professionals and with them, continue to research and apply evidence about the most efficient and effective "what" and "how" special education can be.

The Role of Research in the Future of Special Education

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During the past decade, special education has been adapting to the realities created by a major policy initiative, P. L. 94-142, The Education for All Handicapped Children Act. Such policy changes focus attention on the allocation of resources and proper implementation of new rules rather than program quality or impact. Quality and program impact are topics more in the domain of research and will certainly become of more concern to special educators, as the policy change has been at last completed in most communities.

It makes a great deal of sense to discuss research within the context of the "future of special education." The future is, after all, the natural habitat of research. It is where the fruits of research will be found. We should also recognize that research is the mortal enemy of the status quo. Once knowledge about a particular topic is known, it demands to be heard. It can be put aside for awhile, but in the end the voice of knowledge is powerful and will be listened to.

One simple example of that proposition would be the discovery that certain foods or exposure to certain environments can be harmful to the adult or to an embryo. Powerful economic forces such as the tobacco industry may struggle for awhile against the disclosure of such information as the dangers of smoking, or fight against the interpretation of the data which would be unfavorable to it; but, in the end, the data will speak louder and when it speaks, we will not be able to supress it, even if we wished to do so. We will be forced to take action on the new information. That is the power of research--to generate information that must be incorporated in our service programs.

Past Impact of Research on Exceptional Children

The role of research in special education, to be fully understood, must include some attention to historical influences of past research and how research is viewed by the educational practitioner. He or she who would know the future must be familiar with the past. The present is a broad river which has many historical tributaries which flow into it to shape its current flow and direction. In special education, we can identify many such trends, but three specific examples of the impact of research on practice can be noted as illustrative in that regard:

1. There was a general disillusionment in the 1960's with the efficacy of special classes to help mildly handicapped children which stemmed in large measure from an unfavorable research literature. At first, the failure to find differences in favor of the exceptional children in the special education program was attributed to the poor design of the studies themselves, but when those designs were corrected and investigators still failed to show the expected positive results of special education in special settings (see, for example, Goldstein, 1965), then the stage was set for the clarion call of Dunn (1968) which drew us away from special classes and toward "mainstreaming" or the "least restrictive environment." We could no longer ignore the evidence which was in front of us.
2. For a century the concern for the limited language development of deaf children was fought out between the two opposing educational camps of the oral vs. the manual method (Moores, 1982). The discussions were vigorous and colorful but done

with a marked absence of data. As data on the language development of deaf children became available through federal research funds, it became increasingly clear that the oral method, when used alone, had limited success in developing language in deaf children (Golden-Meadow & Feldman, 1975). Furthermore, other investigators found that early intensive use of manual communication had a positive impact on academic and social performance (Brasel & Quigley, 1977; Meadow, 1968; Moores, Weiss, & Goodwin, 1978). These results spurred on the development of some combined approaches such as the total communication method. As Moores and Moores (1980) summarized:

> Both in the classroom and in less formal settings, the trend seems to be toward the multisensory model. Auditory training, manual communication and speech training are being introduced at early ages and used in coordination with one another. (pp. 59-60)

Once again the data once available could be put aside for a brief time but, in the end, could not be ignored.

3. Finally, we are in the midst of discovering the family system as a key area of concern to replace an exclusive focus on the handicapped child. The ecology of the exceptional child described forcefully by Hobbs (1975) has finally become a major treatment focus (Blacher, 1984; Gallagher & Vietze, 1986) based upon a generation of research on the influence of the family and the social ecology upon the adaptation of the individual. As we survey the puzzling results that have been

obtained by our exclusive attention on the characteristics or behavior of the exceptional child, we may well wish to reflect on the story told by Simon (1981):

> We watch an ant make his laborious way across a wind-and-wave molded beach. He moves ahead, angles to the right to ease his climb up a steep dunelet, detours around a pebble. . . . Thus he makes his weaving, halting way back to his home. . . . the ant's path is irregular, complex, hard to describe. But its complexity is really a complexity in the surface of the beach, not a complexity in the ant. (pp. 63-64)

We have now learned that we must look at the individual in context and few educators are now taken seriously who do not incorporate this concept in their thinking.

The Attitude of Practitioners to Research

There would be a general consensus from educators, I believe, that research has played a significant role in the rapid emergence and expansion of special education over the past four decades. Nevertheless, there are many educators who remain ambivalent about research and its uses. Before considering what the future of research will be or should be in special education, we might pause for a moment to consider these ambivalent feelings.

It is the fate of the practitioner, whether it be pediatrician, teacher, psychologist, or social worker, that they must, in the practice of their profession, go beyond the established knowledge of the field. Whenever there is a patient who is hurting, a child who is misbehaving, or a family disintegrating, the practitioner does not have the luxury of saying, "we will wait to act until we have more research evidence that justifies our clinical action." If they are responsible and efficient clinicians, they will act on the currently available information and hope for the best.

When research catches up, some time later, the knowledge spawned by the research may well reveal that some of the actions that were taken by the practitioners were not optimal, or even correct. This is not likely to please the hardworking teacher or medical practitioner. Nevertheless, if data is available, it is hard to ignore it over the long run. Even if there is a thirty-year history of prescribing certain medicines for a given condition, if solid research becomes available to suggest that those medicines are useless, then the medical practitioner cannot really ignore that information. Similarly in special education, if research identifies areas that do not seem to have merit in helping exceptional children develop, then those practices need to be modified. One example of such practice would be the visual, perceptual-motor training that formed a large part of the special educational program of many young children who were brain-injured or learning disabled. The accumulation of evidence suggested that such exercises yield little in terms of tangible benefits to the youngster and indeed fill up a valuable time space where other more relevant materials and activities can be introduced (Arter & Jenkins, 1979).

Nevertheless, clinicians who have spent a large part of their career engaging in such activities are not likely to be overjoyed with such research findings and indeed may be inclined to want to quarrel with them. The hard facts are that the truth, or our research approximations to the truth, are often vexing because they may force us to abandon some well-established and comfortable patterns of behavior. So if the researcher wonders why he or she is not viewed as a boon to mankind, as they may secretly feel they are, then perhaps an understanding of these conditions may help bring them to a better sense of reality.

RESEARCH ORGANIZATION NEEDS

How does one organize a future systematic research effort to aid exceptional children? We now have a track record of almost three decades of intense interest on the part of the federal government in providing research funds to study the problems of exceptional children. Our organization of future research efforts should profit from that experience.

Organizational issues.

One of the clear messages from our research history is that small individual studies of a dissertation-like quality are not likely to impact on the difficult and complex issues that face the practitioner who works with exceptional children. The research, to be useful, must be both intensive and long-term. In many instances, it should have a multidisciplinary approach to it to reflect the wide diversity of needs and service delivery patterns used with exceptional children and their families.

At the Frank Porter Graham Child Development Center at the University of North Carolina at Chapel Hill, we have been fortunate to be the beneficiaries of two such commitments to long-term and longitudinal research. The first of these comes from the National Institute of Child Health and Human Development through their Mental Retardation Centers program which began supporting research in the mid-1960's. Through that program, we have been able to conduct longitudinal studies, beginning at birth, on youngsters suspected of being at high risk for mental retardation and a variety of developmental disabilities. Through these studies we are in the process of documenting what can and cannot be expected from early intervention programs of a fairly intensive nature (Ramey, Yeates, & Short, 1984).

The second long-term commitment came from the Office of Special Education Programs through their Early Childhood Centers which allows us, in this case, five years to carry out a variety of studies on families of handicapped children, tracing the effect, over time, of stressors, available resources, and personal perceptions on the adaptation of the family to the presence of a handicapped child. Such longitudinal studies looking at changes in families or children over time would be quite impossible without the institutional commitment from NICHD and OSEP to long-term, institutional support (Gallagher, 1983).

Instrument development. One methodological problem that prevents us from more sophisticated investigations into complex family and social interactions is that we have a limited set of instruments through which to pursue some of the questions. We often curse our scientific tools while we use them, anyway, because they are the "best available instruments." A deliberate and planned effort on the part of supporting agencies to contract for the development of needed instruments could enable investigators to more easily capture these complex interactions and could upgrade the quality of research for decades to come. The presence of organized research units, Centers and Institutes, are a great help in instrument development because they have the diversity of staff, stability and support systems necessary to carry out the long and complicated process of instrument development.

Programmatic research. One of the other advantages of organized research units is that they can take the responsibility for long-term, programmatic research. Moores (1986) stresses the importance of programmatic research in the field of deaf education which has too often seen small and fragmented research studies, not relevant to educational practice. He identifies the three roles for the applied researcher which fits the situation for most researchers in the field of exceptional children:

> First is a commitment to basic long-term examination of fundamental principles. This means linking one's work with basic knowledge fields such as anthropology, sociology, psychology, and human development; second, identifying areas in which well-formulated research may have a positive influence on practice; and finally, to interact in mutually beneficial ways with teacher-trainers at the university level as well as with educators in the schools. (p. 141)

Moores describes a series of programmatic research efforts conducted by a research unit in Gallaudet College that includes the study of the development of deaf children during their first three years of life, the developing literacy in hearing impaired children during the ages three to eight, and the adaptation of secondary school hearing impaired children to public high school programs. Such programmatic effort is made possible by a "multidisciplinary core of highly skilled professionals with adequate support working cooperatively on well-defined programs of inquiry."

Priority Areas for Research

Once the organizational units are in place, then what should be the foci for our current and near future research efforts? Building an impressive organization is not of much use if you do not study important issues. Therefore, what would be some major priority areas in the exceptional child field that need investigation? We need to further investigate those dimensions that have been recognizable emphases in the past--the prevention of disorders, the amelioration of problems that stem from exceptionalities, and the maximization of potential of the individual.

Scott and Carran (1986) distinguished three different types of prevention: primary, secondary and tertiary:

1. Primary prevention means minimizing the level of risk for a disease or condition. In primary prevention, one promotes health and adjustment.
2. Secondary prevention occurs where a risk factor or disorder can be reduced, eliminated, or cured. Head Start is an example of a secondary prevention program, aiming to place its graduates in regular education.
3. Tertiary prevention represents activities leading to the management of the condition so that the patient may lead as nearly a good and productive life as possible by bringing the individual to his/her maximum potential. For moderately to severely impaired children, this would mean not eliminating their handicap but strengthening their adaptive capabilities to the maximum. For gifted children it means releasing all of their multiple potential for productive use.

One obvious strategy in prevention would be to eliminate or reduce risk factors which appear linked to the production of handicapping conditions. One risk factor that appears to be increasing is the children with low birth weight who are now surviving where previously they would have died at birth (Scott & Masi, 1979). Infants born weighing 700-800 grams are approximately at a 50% risk for being handicapped (Britten, Fitzhardinge, & Ashby, 1981).

One of the serious special education policy issues in dealing with youngsters at risk is that it is not always possible to identify which of these youngsters will develop the handicapping condition in the preschool years. Yet, many programs and funding agencies insist on a positive diagnosis of a handicapping condition before special educational services can be provided. Scott and Carran (1986) suggest that a different strategy may have to be used in the preshool years:

> At the preschool level, we will have to create noncategorical programs aimed at children who are born _at risk_ for school failure due to any combination of social, biological, familial, and environmental risk factors. (p. 78)

This would mean a public health approach designed to create a favorable environment for overall development rather than the clinical approach of treating a specific individual disease or condition.

Each of these potential research foci noted below are complex and difficult topics, which probably explains why there is still much work to be done on them.

Language development. We need to focus more clearly on the development of language in exceptional children. Language is, after all, both the primary means of social communication and the medium through which we transmit past knowledge to new generations. Any substantial deficit or flaw in that development has serious and long-term developmental ramifications. Not surprisingly, people in deaf education have been preoccupied with that topic, and we need to learn more from their efforts and apply them in other areas of developmental difficulties as well. On this topic, as in other problem areas, we need to draw upon the expertise of psycholinguists and other specialists who have thought about the language issue from the nonhandicapped perspective.

Family interaction. We have become increasingly aware during the last decade of the complex interactions within the family of the exceptional child and how those interactions change and modify over the various family stages or ages of the participants. Such complexity must be carefully documented if we are to be effective in working with families as they try to cope with the presence of a family member with a handicap or in their attempts to maximize the potential of a gifted student. As in the case of language, we need to profit from the ideas and conceptual systems developed by sociologists and anthropologists who have been studying general family issues for many years.

Lifespan studies. We need a variety of lifespan studies that investigate what happens to exceptional children and adults over key transition points in their life history--the entrance into school, the movement from elementary to secondary school, their transition from school to work or vocational activity, and the transition into adulthood and adult responsibilies. All of these transitions represent major shifts in the life of the exceptional individual because of the heavy impact that the environment has upon that child. If we conceive of adaptation being the product of child, family, and social factors ($A = C \times F \times S \times CF \times FS \times CS$) and their interactions, then changing the school environment has the potential for modifying significantly the adaptation.

We need to, therefore, study the changes in cognitive, social, and emotional development in the exceptional individual, and the social dynamics of their interaction with others, through these transition periods.

Understanding these transitions and their stresses can provide the practitioner with much more effective information regarding needed coping mechanisms to cope with developmental change.

Social processes. Cognition, with its recognizable patterns of development and information processing, with its precise dimensions of memory and reasoning, have been somewhat easier to chart than the complex of social patterns and temperament qualities of the individual. However, these latter qualities often have a great deal more to do with effective adult adaptation than do the intellectual characteristics. We need much more intensive study of the development of, and stimulation of, cooperative behaviors, of persistence, of empathy, and the constructive reciprocal social interaction between parent and child and sibling and child. Much of our instructional program for children with handicaps should probably be devoted toward the enhancement of these positive social characteristics instead of treating them as a side issue to the presumed more important cognitive learnings that form much of our curriculum today.

Technology. For many years, special education has been among the leaders in education in the creative use of technology. Technology has been used to overcome the mismatch between environmental demands and individual capabilities (Weisgerber, Dahl, & Appleby, 1981). This mismatch between environmental demands and individual abilities can be coped with by:

1. Altering the capability of a person so that environmental demands can be satisfied
2. Provide an environment that eliminates the mismatch
3. Provide a device to smooth the interface between the person and the environment at the point of interaction.

In particular, there has been a development of access technology which refers to the equipment, equipment interfacing, software, instruction, and materials enabling the independent use of microcomputers by handicapped persons (Ashcroft, 1986). For example, the Kurzweil Reading Machine which converts print to speech output for visually handicapped children has now developed a special interface that enables the reading machine to convert English text from a computer or a cathode ray tube terminal into speech. The development of complex communication boards and voice-operated systems for computer programming are other examples of what Ashcroft refers to as a paradigm shift in our thinking about education of handicapped children. A report from the Office of Technology Assessment (1982) regarding the information revolution states:

> A key element of all of these educational needs is that they will constantly change. In a rapidly advancing technological society, it is unlikely that the skills and information base needed for initial employment will be those needed for the same job a few years later. Life-long retraining is expected to be the norm for many people. (p. 8)

Such life-long retraining and the continued development of technological advances will be necessary if the handicapped are to keep pace in this rapidly changing environment. Substantial investments in research and development funds to allow that to happen would seem to be one of the clear responsibilities of the federal government.

Models of cognitive and social processes. In education, as in other fields, where practioners have to deal with daily problems, there is an understandable lack of patience with general theories or models, but in the long run there is nothing more economical than a good theory or useful model, and it is the development of models that we should be striving toward through research. A few examples would suffice to make this point. Guilford's model of the Structure of Intellect opened up for consideration the whole area of creativity as a dimension of importance in instruction as well as in human behavior. A whole generation of teachers of gifted children have grown up using instructional methods and devices that have been built around, and inspired by, the Structure of Intellect model (Gallagher, 1985).

We are now beginning to utilize more effectively various information processing models such as presented by Siegler (1986), Sternberg (1982), and Gardner (1983). These models, which focus on how individuals receive, transform, and process information, have caused us to look more closely on elements such as the executive function or decision making function, and on topics of metamemory or metacognition, the "thinking about thinking" processes. We have focused our efforts more upon attention and perception, the means by which we receive information. Hopefully, the refinement of these models will find much more fruitful application in instruction in the near future.

One final example of a useful model is the use of a coping structure developed by Hill, as extended by McCubbin, in the field of family adaptation (Hill, 1949; McCubbin, 1979). Hill's basic and somewhat simple model identifies three major domains that impact on the adaptation of individuals in crisis. The first of these is the nature of the stressor itself, whether it be a tornado or the birth of a handicapped child. The second major domain is the availability of physical and social resources and supports. The third domain related to adaptation is the perception of the individual of themselves and their situation. It is a combination of these three domains, and the many complex factors within them, that eventually determine successful adaptation or maladaptation in families. Understanding such a model can help us understand why certain families not only adapt but seem to flourish under what would seem to be a heavy stressor, whereas others seem to disintegrate under what seem to be the most modest of pressures.

Program Evaluation

One of the areas that has been closely related to research has been program evaluation. This area has been referred to as the "spinach of education" in the sense that it is very good for our programs, but few people in the programs enjoy the experience. While program evaluation uses many of the traditional measuring instruments of the researcher, and reports of evaluations often seem to be similar to research reports, there is a fundamental difference between research and evaluation.

In the case of evaluation we are attempting to gather evidence leading to a decision about a specific program, whereas in research we are looking for data that can be generalized to a larger group of people or set of ideas. While the evaluation study can sometimes have larger applications, the basic data is supposed to refer to a specific decision about a concrete and finite topic.

Since there is a general reluctance to financially support evaluation studies, such efforts need to be institutionalized as part of the normal expectations of a program. The politician or educational administrator who has been responsible for establishing the program has already said everything positive that they can think of about the possible benefits of a program in order to convince others that it should be supported. Any serious effort at evaluation then is bound to bring bad news--a less than optimum result. Few politicians want to hear that about their own programs, and neither do educational administrators.

Yet, well-done evaluation programs can be of substantial help to the improvement of the program. Therefore, we would recommend that evaluation become a specific part of every program in special education, and that these reports would be both formative in nature (designed to help the project staff) and summative (allowing decision makers to determine overall value) in character. This will not be a popular stance with practitioners, but it is a statement of accountability that exceptional children and those who care about them should applaud. Therefore, in the budgets of demonstration centers or special projects, there should be funds made available to carry out program evaluation.

Research utilization. The generation of research information is one valuable element in this process, but by itself it will not help the practitioner very much. One useful analogy is that research knowledge is like crude oil out of the ground, an extremely valuable product, but you would not want to put it directly into your automobile. That oil has to be refined and transformed to meet specific purposes before its true value is realized. We need a different set of organizational components that are specifically designed to transform, synthesize, and apply existing knowledge to meet the needs of the practitioner.

We need institutions or components that will transform research knowledge into differential curriculum or into different teacher strategies. We need additional organizational units to provide technical assistance and to disseminate widely proven knowledge and products. We need demonstrations of exemplary practices in order to encourage others to adapt these practices to their own needs and settings.

The Handicapped Children's Early Education Program is an example of a well-planned federal government effort which contains within it support for research centers which generate new knowledge, demonstration centers which illustrate the best of what we now know in practice, and technical assistance services to see to it that there is a synthesis and spread of knowledge and good practice in the most expeditious way. In many respects, the Handicapped Children's Early Education Program stands as a model of good government planning that yields both effective research and research utilization practices (DeWeerd, 1983).

Research Design and Style

Trends in research occur in the manner of designing and conducting research as well as in the content of the research itself. Much of how investigations have been carried out in special education mimics what has been done in the social sciences, which borrowed much of their methodology from the biomedical and physical sciences. We have begun to see that such designs may have limitations when applied to the highly idiosyncratic populations that we deal with in exceptional children. Case studies and small sample studies with all their faults may well yield more useful information than studies using larger but more heterogeneous samples.

Do we need more investment in research and in research training? It would come as no surprise to the reader that this author believes that few expenditures have as great a potential to bring benefit to exceptional children and their families. Having more research money, by itself, will not guarantee positive results. It is not terribly helpful if we have a platoon of studies all posing inappropriate questions and faulty designs. The answers we get will hardly add to our wisdom. Mather and Kirk (1985) remind us that several generations of graduate students have had to learn

Type I errors (rejecting the null hypothesis, when it is true) and Type II errors (accepting the null hypothesis, when it is false). They introduce a Type III error--asking the wrong research question. There are probably more serious problems in our field with Type III errors than the other two combined.

Mather and Kirk provide the following example. We often see the question asked, "DO CHILDREN WITH READING PROBLEMS HAVE VISUAL DISCRIMINATION PROBLEMS?" The approach to this question has often been to get a sample of children with reading problems, and a comparison sample of children without reading problems and compare their performance on visual discrimination tasks. With this type of design, we often find that the statistical answer to the question, "is there a difference between the two groups?" The investigator surveying his findings will report no statistically significance and conclude that reading problems are not related to visual discrimination problems. The reason for such a finding appears to be that there are a myriad of possible causes for reading problems, of which severe visual discrimination problems would have a rare prevalence. When statistical comparisons are made, the one or two children with severe visual discrimination problems in the reading problem group would not be enough to sway the results.

Well, what is the right question to ask then? DO CHILDREN WHO HAVE A SEVERE VISUAL DISCRIMINATION PROBLEM HAVE TROUBLE READING? This question is almost certainly going to be answered in the affirmative. We should not, therefore, with our research designs assume a unitary cause for any of the problems with which we deal. We are more likely to gain useful knowledge by seeking subpopulations within the larger categories and distinguishing them from one another or conducting careful studies of children with the presumed disorder. The literature in the field of learning disabilities is awash with studies that have posed a variation of the first question (Do children with learning disabilities . . . ?), and we have received what is very likely to be misleading and inaccurate results (Arter & Jenkins, 1979).

Another reason for confusion in research findings about a miscellaneous category such as learning disabilities is that the researcher may accept the educators' procedures for identifying certain groups of children, instead of setting their own conceptual criteria. For example, if we attempt to study learning disabilities by finding children who have been placed in classes for learning disabilities in five separate communities, we will have five different samples of children, different among and between themselves so much that few conclusions could be drawn besides how foolish we were to allow others to define our samples for us.

One further design issue is how to capture the influence of small or modest effects, of which it appears we have many, on the developing exceptional child and family.

Research in the social sciences has shown many signs of maturation over the past decades and now offers great promise for significant contributions to the field of exceptional children in the immediate future. It requires a steady flow of dollars, intelligent administration, and the commitment of a cadre of researchers to attack that wildest of frontiers, the developing human being in all his/her infinite variations.

SUMMARY

The role of research in the field of special education has been a complex and puzzling one. On one hand, the practitioner is often fearful that the researcher will emerge with information damaging to their current practice and, on the other hand, hopes that there will be produced new methods or materials that can be instantly usable with their exceptional children. Such expectations are sure to be disappointed because of the need for transformation and synthesis of data before it can be effectively used in the classroom. Hence, a state of tension often exists between practitioner and researcher.

The United States has led the way in the development of complex organizational structures designed to carry out highly differentiated tasks in the world of business and industry. There is a similar organizational need in the field of special education, but since education is not a profit making organization (though highly beneficial to the society), support for such organizational structures must come through public agencies. Such Centers or Institutes can focus upon research, development, demonstration, and dissemination and are particularly useful in such tasks as instrument development and the execution of multidisciplinary longitudinal research.

Research emphases in the past have often been represented by studies that could be done with standard instruments and commonly accepted research designs. This has meant that problems where there is a complex set of interacting factors, or a good deal of idiosyncratic response by individual children, were avoided as methodologically unfeasible. Current research priorities should focus upon such complex problems as the classroom interactions in both affective and cognitive domains between teacher and student, the impact on a child with handicapping conditions on family

systems, the development of social processes, the sequential interaction of child and environment leading to differing types of adaptation, and the interactive role of technology in special education.

In short, we should do the difficult studies (even with small samples or single subjects) that are important even if they almost always result in less than elegant research design or methodology. We need studies that bring more insight into our complex present, and which may project usefully into an even more complex future.

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The Journey of a Teacher: Bridging Gaps, Traveling New Roads

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ACKNOWLEDGMENTS

Two very special individuals share in the creation of this case study. As I began to realize the wide scope that this paper would cover, I immediately sought guidance from Dr. James Greiner, Associate Superintendent of the Wayne County Intermediate School District. His enthusiasm for my involvement in this project was matched only by his support, allowing access to his consultant staff, and time at work to pursue the issues involved. Dr. Len Rezmierski, Executive Director of Special Education of the Northville Public Schools, and President of the Michigan Federated Chapters of The Council for Exceptional Children, gave me the focus for viewing special education as a road that we travel, with gaps we must bridge. Both individuals are a source of inspiration, serve as my mentors, and they are my friends. They have served as a model of the type of administrative support that can exist for a teacher's endeavors. If they are representative of administrators across the country, I am confident that administration and teachers will join hands and successfully meet the challenges that await us.

Special thanks to Ray Telman, David Soebbing, Mary Fayad, Kathryn Mathey, Donna Sewrey and Wayne Ruchgy, who helped enormously with identifying many of the concerns in this retrospective. And to the hundreds of teachers I've talked to, I'm sure you will recognize yourself in these pages. Thank you for sharing not only your thoughts and memories, but also your soul.

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PREFACE

The information gathered to support the statements made in this case study was collected in a variety of ways. Teachers in the Wayne County Intermediate School District's center-based programs for the severely impaired responded to surveys where they identified the improvements and disappointments over the past ten years and described the present problems in their classroom. Interviews were held, both formally and informally with teachers of a variety of disability areas: learning disabilities, mental retardation, hearing impaired, physically handicapped and the speech and language impaired. These teachers, both at the secondary and elementary level, willingly shared their memories, their triumphs, their dashed hopes and their concerns for the future.

I was frankly not prepared for sadness and disillusionment that teachers expressed regardless of categorical impairment, or age of the students taught. The most alarming lesson I learned through this experience is the emotional upheaval that teachers are going through, and how this has created negativity and promoted mediocrity in the classroom. If there is any message we must pay heed to as we plan for the future, it is the emotional impact that working with handicapped individuals has had on my fellow professionals.

It is important to mention that most of this information was collected in the State of Michigan, which had special education in place much earlier than 1976. Perhaps states who are "newer" service providers can recognize some of these early concerns and learn from our experience.

THE JOURNEY OF A TEACHER: BRIDGING GAPS, TRAVELING NEW ROADS

It is of particular significance that, as you gather eight individuals to present various perspectives on special education, you have included a teacher to give voice to future directions. A teacher was chosen once before to give a "vision" of a future frontier to millions of students. What Christa McAuliffe took with her will perhaps be the legacy she left behind - a simple tee-shirt - "I touch the future. I teach." I will not be presumptuous enough to assume that my mission in this symposium is comparable to Ms. McAuliffe's. However, the comparison of these two future-oriented activities gives focus to the importance that the role of a teacher can have in impacting events that shape the lives of students.

I will take you on a journey during the next few minutes. We will travel the road of special education as a classroom teacher, following a path carved by the trailblazers in our profession. During our early travels, we will reflect on the accomplishments and disappointments of this venture since P.L. 94-142. We'll pause at the crossroads of this journey, and examine current obstacles we must overcome to continue the trip. As we take our first steps in determining our future route toward our special education destination, we will prepare for the bridges we must cross, and the challenges that await us.

> **"Can it be that it was oh, so simple then? Or has time rewritten every line?"** (from The Way We Were, by M. and A. Bergman)

Teachers remember the initial impact of P.L. 94-142 with great fondness. "We were working at _____ State Home in 1975", recalls a former teacher of the mentally retarded. "We worked with all types of disabilities...E.M.R., T.M.R., severely retarded, physically handicapped, autistic kids, schizophrenics. There were 840 kids there, and we had six classrooms. Then came 94-142, and kids who probably hadn't been out of their underwear in years were being placed on a bus for school. It was a TOTAL LIFE CHANGE for thousands of individuals."

"We waited at the school in the hallways, by the doors, to get a glimpse of our first students", adds a teacher of the speech and language impaired. "Thirty out of thirty-five of us were brand-new teachers, all hired on the same day. First year teachers, first students. The students came from a residential facility, and as they were removed from the bus, they exhibited every institutional behavior imaginable. One man in his early 20's came up and rubbed the bricks with his hands while sniffing them. He had a tear on his cheek when he turned to me and said "School. Thank you." I'll never forget it. Ten years later, I still get a lump in my throat. "Everyone was so grateful then."

The most visible improvements seemed to be with the institutionalized, soon to be deinstitutionalized, population. Educational programming, community placement and behavioral treatments for bizarre mannerisms, aggression and self-abuse have brought about dramatic changes with these individuals. But high school teachers of learning disabled students and other high-incidence disability areas believe that P.L. 94-142 rescued hundreds of kids who simply "disappeared" prior to mandatory special education. "We had one special education teacher for our entire high school of 2100 students. There just weren't services for those high-incidence kinds of kids, so they dropped out" recollects one teacher. "We lost a lot of kids who now can be very productive. Special education kids still drop out, but not because of exclusion."

The latter seventies were the years of accessibility. At the onset of P.L. 94-142, there was a general excitement at just being part of special education. There were mass hirings, and most educators were young and idealistic. A pioneer spirit existed among teachers. Special education was a new frontier, and we were following the path of greatness of those trailblazers who fought long and hard prior to mandatory special education. Money was plentiful, and there was a feeling that we could do anything. Education was THE answer, and teachers eagerly plucked programs from the hands of the A.R.C.'s, the Easter Seal's, the church basements and the Y.M.C.A.'s. Parents loved us. Their handicapped kids were going to have an education just like their siblings, and somehow it was implied that this was going to "normalize" or "fix" the handicap. And teachers perpetuated this idea of "curing" and "fixing" kids. Did we not want to be the next "miracle worker"?

Like any new frontier, special education classroom programs had little direction or governing during the latter seventies. Programs could vary vastly from district to district, even classroom to classroom within the same program. Some classrooms would be little more than arts and crafts programs, while others attempted to teach general education concepts steeped in academia. Return with me to my first classroom in 1976. I was a first year teacher welcoming a group of severely involved, autistic adolescents to their first school. The law was not even six months old, and I certainly did not understand the legal ramifications of it. I did not really know what to teach, but no one really seemed concerned about that. As long as the students were in school from 8:30-3:00, that was fine. Like so many of my peers, I used as a "guiding force" my determination that these students would know school as I had known it; that it was a marvelous environment to be in. They would know the thrill of accomplishment, the excitement of intellectual challenge, the joy of discovery, the satisfaction of creativity and the pride in self-respect and dignity. Goals, objectives and activities fluctuated between "functional/frivolous" and "appropriate/inappropriate", but together we learned many things so many of us take for granted: how to eat a meal, how to behave in a movie theater, how to listen to music, how to dance, the love of literature, the purpose of friendship. I don't know how I would task analyze or collect data on many of these things in today's classroom, and since many of the activities don't fit into today's IEP document, I simply choose to forget them. But Motown music, the Gong Shows and personally meeting the Chicago White Sox are cherished memories, and the laughter from the students still rings in my ears. When I saw a former student of mine from that original class, he did not demonstrate the proper greeting of shaking my hand and signing "How are you?" Instead, he smiled and signed "Going to the Chapel of Love". It was the laughter he too, remembered.

Many teachers view the early flexibility in classroom programming as an aspect that is sorely missed, and find the lack of opportunities to be creative under the present state program guidelines a major disappointment. These professionals, particularly those working with severely handicapped students, have seemingly forgot the feeling of floundering about and being hopelessly lost as they tried to decide what to teach. There are I.E.P.s in former student's files that are a source of extreme embarrassment to me when, with severely handicapped students, I heavily stressed learning the alphabet, shapes and colors as well as stacking blocks and completing a formboard. Teachers in Michigan now have mandated program content areas which at least provide a foundation for their classroom. Educators unanimously voice disappointment regarding the issue of the content of classroom programs. Reasons can vary tremendously. As noted, some teachers feel that the adoption of rigid behavioral curriculums in conjunction with specific state guidelines has hampered any efforts of creativity in their profession. But other educators state that not having had early direction in classroom programs led to what they feel is one of the greatest failings in special education - the lack of a solid course of study and curriculum for many disability areas. The search for direction and the product that would "make everything work" has led to a continuous turnover among curriculums. It appears that it is not unusual for programs to adopt new curriculums and philosophies every two years. Teachers complain they have no roots or no sense of where they are heading. Some districts have adopted a single curriculum, but tend to choose products that have been validated through research at a university. The field testing was done primarily in university affiliated sites, making replication in rural communities or urban public schools very difficult, with inappropriate use of the curriculum often the result. Teachers also voice concern that trying to emulate general education was another detour on the road to quality programming in special education.

Most teachers wholeheartedly agree that products and materials have vastly improved since the seventies. The accessibility awarded to education with P.L. 94-142 created tremendous numbers of additional students and teachers. The availability of federal funds to support special education served as an impetus to product developers and commercial vendors to tap this marketable area. Classrooms and schools look so much better. The classroom of 1976 had a child-oriented theme regardless of chronological age. Classrooms for developmentally disabled students had an abundance of stacking rings, pegboards, colored inch cubes and formboards. Material selection was limited to products that seemed to correspond with test items. A psychological report would typically state "Student could stack five cubes, but was unable to build a seven block tower." Since this was something that was tested, and an item a child failed, many teachers felt they had to teach this task. (Perhaps this was the special education version of competency testing.) Other materials were purchased through early childhood catalogs. Teachers of the learning disabled student and of educable mentally retarded individuals report how happy they are to have been granted a divorce from the ditto machine. These classrooms in 1976 had mostly teacher-made materials, with the exception of Frostig worksheets. All teachers report the relief of not having to spend countless hours creating materials. "Adapting materials is one thing, and we still do that," reports one teacher of the learning disabled. "But we had to create things from scratch. It was like a second job. Now there are high-interest books for low-level readers. Materials are developed for particular learning styles and this has resulted in tremendous gains for the learning disabled student. We have access to the talking books from the Library for the Blind. And computer technology...what a boost!"

The classroom of the 80's is far better equipped, with materials that are more functional and age-appropriate. Teachers of students with physical disabilities report great satisfaction with the adaptive equipment for these individuals: better wheelchairs, head support systems, side-liers and eating utensils. But perhaps the most exiting dimension added to the 80's classroom has been the microcomputer. Recent technological applications in the special education classroom have given severely handicapped individuals new freedom of exploration of their environment, greater independence and new voices to tell us about it. We all cried when Serena, a cerebral-palsied, mentally retarded child, "spoke" her first words at age 13 to her mother via a voice output communication aid (VOCA). "I love you", said Serena. And to Dr. John Eullenberg, who gave her the voice, "Thank you". VOCA's, adaptive switches and microcomputers show great promise in promoting the severely handicapped student as an active learner rather than a passive recipient of information.

Microcomputers and related software have changed the lives of thousands of learning disabled students, allowing them to process and retrieve information, and express their thoughts and ideas in a more eloquent manner. Teachers attribute the decreasing stigma of being in the resource room to the special education student's ability to use the microcomputer. "I have general education students asking to come to my room for extra help and to use the three micros", says a secondary education teacher of the learning disabled. "The stigma of coming here has vanished."

Programs and products that have been the result of a decade of work toward the implementation of P.L. 94-142 have been both the source of pride and disappointment to the classroom teacher. Nothing has impacted our profession as much as the state guidelines for special education which are based on this federal law. The remaining portion of our journey from the classroom of 1976 to the classroom of 1986 will examine the gradual fulfillment of P.L. 94-142.

Aside from the tremendous growth in the numbers of students, the first components of 94-142 that directly affected the classroom teacher was the IEP and its committee process. I can best illustrate the changes that have occurred in the development of the IEP by sharing with you my first IEPC and comparing it to the current practices. In January of 1977, all the teachers in my district were sent a memorandum that stated that we must have IEP's, complete with goals and objectives, developed and in place by the end of the month. Panic ensued! I called the first parent on my class list and explained that together we had to write up a program for Tom. Donna replied that she worked days and asked if I could meet her after 6:00. We arranged to meet at the school at 6:30. She asked if, in appreciation to me for accommodating her working schedule, she could bring dinner. Donna and her husband arrived at the school with two large pizzas and a six pack of beer.

During the next three hours, a friendship was formed that, ten years later, still exists. I was able to really know Tom, his likes, his dislikes, his relationship with his sister, the pleasures that he has given his family, the sometimes devastating effects that autism and mental retardation had on the family structure. We talked, laughing and sharing some somber moments, like we were three college kids. We wrote up a vague, one page document that was to become Tom's first IEP. The only goal his parents really wanted for him, at age 14, was to get a real "kick" out of life. Other than that, they just thought he should learn what other kids already knew: colors, shapes, numbers, writing his name, raising his hand to go to the bathroom. Surprisingly enough, that's what most of the parents of my students wanted in those early, naive years.

The IEP's were amazingly simple, not always "measurable". How do you quantify the "enjoyment of participating in community events"? And how were these early IEP's implemented? In large part, by piling one teacher, one aide and five students into a beat-up Chevy Impala and going to just about every activity imaginable. Professional sporting events, live theater performances, the symphony, movies, beaches, ethnic festivals, open markets, museums, restaurants, and renting farm plots and growing a garden (not to mention canning our produce) were all part of the classroom that extended beyond four walls.

I met with Donna, almost ten years later to the date of that first IEPC, to take a look at how far we've come in terms of writing programs for kids. She pulled out that first document to compare with the present, and I was absolutely horrified at the unprofessional quality of it. "If CEC ever saw this", I laughed with embarrassment, "they would revoke the Clarissa Hug Award!" Tom's 1986 IEP is now seven pages long and filed in triplicate. Attached are typed reports from the multidisciplinary team that took part in the IEP process, the occupational therapist, the physical therapist, the speech therapist, the psychologist and the classroom teacher. Parents are also encouraged to present a typed report on the child's present functioning level, but Donna did not do this. There was no pizza and beer shared between friends at this last IEP. The nine people that participated in this all wore suits, Donna tells me, and all presented reports in a professional, businesslike manner. I did not hear laughter as I listened to the audiocassette of the IEP. An advocate for Tom recorded the entire IEP for Donna in the event that she ever has to go to a hearing. Tom's IEP is a professional masterpiece. There were goals and objectives (measurable ones) in leisure programming (he will learn how to use Simon, Legos and a pinball machine using a task analysis approach); communication (still trying to get him to use sign language spontaneously); vocational training (two part assembly and disassembly); self-care, daily living activities and cognitive skills that must have included at least 15 objectives! I said to Donna, "You must feel extremely relieved to see that programming is so much better and so much more accountable." She answered yes, but with certain qualifiers. "I'm not friends with Tom's teachers anymore. I don't have the same trust in the schools. I'm really saddened by that, but I don't know what to do. Our advocates cite so many examples of how kids have gotten screwed by the school systems. I'm always on the alert to see if Tom really is getting all these things that he is entitled to. Tom has had some problems in the past few years with noncompliant and stubborn behavior. He just doesn't seem to like school like he used to. So I have a better program for him, but at what cost?"

Indeed, at what cost. We both knew that if Tom's first IEP were held in 1986, we would not be friends. The IEP process is not conducive to friendships with parents anymore. What I originally loved about P.L. 94-142 is that it said to parents, "Your child is worth something to us. He can learn, and together we can make it happen!" We've lost the feeling of "together" in the present process. When teachers and parents sit at the IEP table, it is often with an undercurrent feeling of being adversaries. The increasing amount of investigations, complaints and hearings that teachers find themselves part of have taught them to "couch" remarks and never make a comment that could be used later in court. The presence of tape recorders at IEP's is now commonplace, and this appears to have kept the process very professional, but has introduced an element of distrust among both the school personnel and the parents. IEP's are developed without any regard to the other students that are in the classroom. If the child is entitled to the service, the school has a responsibility to provide it and the burden it may place on the classroom teacher is of no consequence. Teachers report that they are increasingly being confronted with IEP's that are impossible to implement given the number of students that they program for. The paperwork generated from the IEP has steadily increased, leaving teachers feeling overwhelmed and guilty at spending less direct time with students.

The specific rules and mandated services appear to have hampered some of the flexibility of programming. Instructional hours are interpreted to be hours that occur in the educational environment, and this is a school setting, not a garden plot. Donna lamented that Tom "never goes anywhere with his classmates anymore". Increased liability, damages from lawsuits have resulted in administration curtailing trips in staff cars and participation in community events where supervision is deemed "less than adequate". "Doesn't he get to go anywhere?" I asked incredulously, given the recent push for community integration. "Well, the students get to go to the Shrine Circus, and roller-skating. And once in a while, they go to McDonald's." I find it difficult, as a teacher, to once again confine myself to four classroom walls, even though that classroom is a much improved version of the 1976 model.

But I understand that with the cost of the related services that are mandated by the guidelines, the increased cost of transportation, the increased costs of hearings and due process generated from dissatisfied parents as a result of the IEPC process, community experiences just can't be the priority I want them to be.

The categorization of disabilities is another outgrowth of the federal mandate and it has been a mixed blessing. Categorizing created a network of people who supported each other. "Consumer groups" really came of age, and the National Society of Autistic Citizens and the Association of Children with Learning Disabilities joined the ranks of long standing organizations like the Association for Retarded Citizens and United Cerebral Palsy. Evaluation tools and diagnostic processes are generally better, and with the exception of the learning disabilities teachers, there is a general opinion that kids are pretty well placed, and this increases the likelihood of appropriate programming. But the specificity of the categorical impairments has greatly impeded mainstreaming efforts. The rules for program content are so specific that flexibility is out of the question, complain several teachers. One teacher of the hearing impaired is placed in a regular school. "I have five students in my classroom.

When I suggest to the general education teachers that have 35 students in their classroom that they could integrate some of my students, they look at me like I'm nuts. Why take a few of my students and leave me with only one or two? There's a real general education backlash because of some of the numbers we have."

Categorizing had a surprising impact on some teachers. A veteran special education teacher mentioned that prior to P.L. 94-142, she taught a wide variety of disability areas. "I had anywhere from 25-30 kids, all disabilities, and I did a great job. They were a real part of the school. Then, in one year, the rules told me I didn't 'know how' to teach the emotionally disturbed kids, or my two hearing impaired girls, or the autistic boy. I could only handle 15 kids. And now, I too believe I can only handle 15 kids of a singular impairment. Despite my early joys and successes the 'rules' and the law impact your belief in yourself and your profession. And not necessary positively."

A teacher of the speech and language impaired continues along this same line of thought. "There are so many specifics as to how many services these kids need, particularly with low-incidence populations. Occupational therapy, physical therapy, adaptive physical education, speech therapy, behavioral programs, work-study...it just boggles the mind! Imagine how a general education teacher must feel in attempting to integrate a variety of disabilities and therapies: a braille printer for the blind student, phonic ears for the hearing impaired, material adaptation for the L.D./E.M.R., communication aids for the cerebral palsied student, periodic repositioning for the physically handicapped; and now we add that we want to integrate severely and profoundly retarded students and autistic kids! All to their classroom of twenty-five to thirty kids. No wonder general education hates us."

But where mainstreaming does occur, and when services can be delivered in an integrated setting, most teachers feel that there has been increased awareness and acceptability of the handicapped students by their peers. More physically handicapped kids are being integrated into general education classrooms. Severely and profoundly handicapped students are being included in regular schools, although usually in segregated classrooms. But teachers report promising efforts and attempts to include all handicapped students in non-instructional activities in regular education. The increased visibility and media exposure of individuals with handicaps has resulted in new opportunities for disabled students. What an inspiration it was for me to view the Today show recently, and see an interview with Joe Conners, a young man with Down's Syndrome, who was selected to be a page for Senator Chaffe. I'd like to think that Joe's education, provided by the tenets of P.L. 94-142, helped give him the skills he needed for that select position.

In retrospect, let's highlight what occurred during the ten years since P.L. 94-142. Tremendous gains were made in terms of numbers of students served and in the increase of the array of services now provided within the schools. The materials and products used in the present classrooms are of superior quality. The increasing integration of microcomputers and computer assisted instruction places teachers, once again, on an exciting frontier in education. The quality of IEPs appears to be more thorough and professional. P.L. 94-142 has perhaps been the greatest human rights action statement of this past decade. We can all take great pride in the strides we have made in implementing it. The visibility and inclusion of individuals in schools have resulted in a growing awareness of the capabilities and strengths of handicapped persons.

On the backside of the jubilation we feel when listing the accomplishments is the alarming emotional toll taken on the teacher. Morale appears to be at an all time low. Teachers cite how they were once the "savior" to parents and the community and now they are the "criminal". The greatest disappointment mentioned in interviews conducted with teachers is that they have had no visible impact that consumer groups and parents have noticed.

We've reached the point in our journey where we will explore the current problems of the 1986 classroom. The past events have had a direct impact on the concerns of today's teacher. As we enter this stage of our trip, we must remember that the core of education is not administrative rules, but the relationship between the student and the teacher in an educational environment. When we talk "quality education", "success in education", we are talking about the heart of the classroom: the teacher. Sadly, reports indicate that the spirit of this "once-pioneer", the heart of the teacher, has been badly damaged.

> **"You, who are on the road, must have a code, that you can live by. And so, become yourself, because the past is just a goodbye. Teach your children well..."**(from Teach Your Children by Crosby, Stills, Nash and Young)

Special education teachers are on the road, but they do not seem to know where they have been or where they are heading. The change and rapid growth that has taken place over the last ten years has greatly contributed to this feeling of being in limbo. Teachers listed examples of the changes they have experienced in every aspect of their profession. "The biggest changes are with the rules", report several teachers from Michigan. "We finally got a grip on what the guidelines meant for classroom teachers, and now we have another set of rules with a variety of changes." "I can never feel like I'm an expert in my field", laments one special education teacher. "I can't keep up with the interpretations of the rules in light of the hearings and decisions that are handed down. I give suggestions and recommendations to parents based on my understanding of the rules, and it comes back to haunt me. People tell me I'm wrong, and it really takes a toll on my ego."

Let me share with you a personal example of how the ongoing changes in rules can affect a teacher's "expertise". During 1985, I was awarded Michigan Teacher of the Year by our state CEC organization, "Outstanding Alumnus" from Eastern Michigan University, and The Council for Exceptional Children presented me with the first Clarissa Hug Award, honoring an outstanding special education teacher. My experience and accomplishments while working with autistic students accounted for many of the reasons I was selected for these awards. Autistic individuals in Michigan were categorized as emotionally impaired until 1983, when a new category and rules were established for the autistic impaired. An additional teaching endorsement followed, and when the rules went into effect, I was not in a classroom for the autistic so I could not be "grandfathered in". I am no longer qualified, in the state of Michigan, to teach the same students with whom I had so many successes and achievements. My experience with rule changes is not that unique.

The environmental changes are another source of stress. Most special educators have experienced at least five building changes in less than ten years. Some teachers have worked in the same program, but have had it administered by several different educational agencies. "It's hard to believe that there is any administrative commitment to our programs and our students when we are shoved around between districts", complain teachers of the severely impaired. "We have no roots, and are reluctant to try to establish any long term goals for the programs, because another administrative change means another philosophy, other priorities, and other setbacks in any progress we've made." Even when teachers stay in one building for a length of time, their classrooms are moved regularly. Many teachers report that the special education kids are given the "worst" classroom facility in the school. "We are located the furthest from any resources like the library, the gym, the office, and always the closest to the boiler room." Staff turnover is another component of the constant change faced by special educators. Teachers move on to different professions, or jobs related to education, with increasing frequency. It becomes hard to establish a cohesiveness among teachers in one building, given the moving of facilities and staff turnover.

Rarely does a school have a special educator who has been at the same site for over five years. Indications based on the teachers interviewed for this case study are that great numbers of special education teachers are going to jump to general education jobs as soon as they open up. This "mind-set" contributes to a lack of commitment to the profession, along with the emotional trauma that most special educators are presently facing.

I have had the opportunity during the past few years to present workshops throughout the United States, and to talk with hundreds of teachers about our shared profession in special education. I discovered an interesting, seemingly universal phenomenon that we all go through in terms of defining our purpose and role in the education of handicapped kids. We experience a "Loss and Grief" cycle similar to the process that parents go through in coming to terms with the disability of their child. My interviews for this paper confirm my belief that special educators are experiencing critical stages of this cycle. The emotional impact that working with handicapped children has on the individual is the single biggest problem facing teachers in today's classroom. Individuals who seek solutions to current and future problems in special education must have an understanding of this cycle. It merits a description of the stages teachers experience.

Teachers new to the profession of special education, whether recent graduates or reassigned teachers, approach their profession with many hopes and expectations. Much like the expectant parent, there is an element of fantasy about what "it" will really be like. Once placed in the classroom, the reality never matches the hoped for ideal. In special education, the differences between the "hoped-for" classroom and reality (much like the "hoped-for" child) are so tremendous that teachers enter a period of shock and disbelief. What teachers had learned, what they had hoped for, doesn't match up. So they enter the next stage: searching. Much like the parent who goes from doctor to doctor, therapy to therapy, looking for the answer that will bring that "hoped for normal child", so do teachers go from workshop to workshop, conference to conference...to books...journals...curriculums. We want to find the key, the answer, that will make this classroom the fantasied ideal.

But we search and search and we don't find. And like the parents of the children we work with, we find ourselves in a period of detachment. It is a necessary step all parents and all professionals dealing with handicapped children must go through. You have to be able to step back and really look at what you have. You must pass through this stage in order to develop a personal mythology. Parents go through this stage answering the question "Why did this happen to me?" Teachers go through this stage asking themselves "Why am I doing what I am doing?" This is where teachers develop their teaching philosophy, and once provided with direction, they enter into the last stage of this cycle: reinvestment. When teachers recognize the emotional vulnerability in special education, when they are supported through this cycle of coming to terms with emotional upheaval, they will be able to define who they are, and the code they must live by...and they will teach their children well.

Teachers who don't recognize this phenomenon of "loss and grief for the hoped for career" find themselves stuck in the stages of searching or detachment. Working with families who are also experiencing stages of this same "loss and grief" cycle creates emotionally explosive relationships. There are additional stresses that add to the emotional overburden of the special education teacher. Dwindling funds for programs, increased paperwork generated by rules, and the additional responsibilities added to teaching duties all contribute to the feeling of being totally overwhelmed most teachers say they experience.

Special educators see a large gap between community agencies and the school. Many teachers feel that with the concept of "related services" the school is expected to provide everything and that agencies are not assuming their responsibilities. However, a school social worker offered an interesting perspective on why this occurred. "We've alienated many of the community agencies to whom we could once turn for support. Many groups were providing some kind of day program to handicapped kids when P.L. 94-142 came into effect. We, as educators, in essence told them that we could do a far better job, and eagerly snatched programs from their agencies. If the agency people providing 'instruction' were not teachers, we disregarded any suggestions they might have. We are now paying for our early arrogance." The departure from providing types of direct service programs for handicapped children has enabled agencies and consumer groups to take a role of advocacy for children. Since special education is a service provided that has rules and laws, it follows that teachers are now in positions where they are "violators" of the rights of students. This contributes to the animosity that can exist between school and agency personnel. A representative from Protection and Advocacy explained, "It's not that we believe everyone else is doing a wonderful job and you're not. It's just that you have a system in place where we can pinpoint violations, and we can nail you." Districts have begun to establish interagency collaboratives to address many of these program issues. Educators and agency personnel are sitting down and drafting agreements to determine responsibilities of the school and the department of mental health.

My experience with these types of committees and advisory councils has been promising. However, when I attend as a representative of the teaching profession, I often experience a barrage of comments on the failings of education and of teachers in particular. It will come to pass that agency personnel will stop throwing the pieces of chalk at the teacher, and then they will be able to use it to write out goals and dreams for handicapped individuals that we can cooperatively achieve.

Teachers feel put upon to provide services that are not necessarily teaching activities. They are asked to conduct parent groups, and given their vulnerability, are not usually very successful at it. Parents want them to contact community programs to get information on after-graduation programs, on recreational programs, on medical services and other similar items. "Many times, much of what I am asked to do as a classroom teacher falls more within the realm of a social worker or a therapist", says one educator. "It's hard to keep a perspective as a 'teacher', and what a teacher's role is."

Related services have resulted in the teacher's need to become a master engineer at integrating therapies within the classroom. Many students have programs in occupational therapy, physical therapy, speech therapy, and adaptive physical education that teachers are expected to implement. Programs are often designed by these program specialists, on an individual basis for students, and given to classroom staff to conduct. Teachers sometimes resent this delivery of related services which places the responsibility of implementation on them. "I'm not a therapist", exclaims one teacher. "I have a hard enough time trying to teach, much less master four additional disciplines." The inclusion of more severely handicapped students in public schools has resulted in teachers performing some medical tasks in order to maintain the child in the classroom. I visited one classroom of severely multiply impaired students whose teacher complained that the students didn't need a teacher, just a full-time nurse. Indeed, two children were using I.V.'s, there was a student who had to be catheterized, and a child who was fed using a tube. And although there was a nurse assigned to the school, the teacher did end up performing some of these tasks. A distinction must be made between medical services and "related" educational services.

Lastly, teachers are gravely concerned about establishing and maintaining quality in their profession. The Nation at Risk report implied that we had a large part in committing an act of war on the children we so dearly love, and it is an accusation that still stings. Many teachers expressed concern about the newly hired professionals in special education. They feel that the new teachers lack the drive and ambition that is so needed, and that they are not bringing enthusiasm and new methodology and ideas to the field. All teachers expressed the need for continuous, on-going inservice, and felt that inservice must take different directions than the one day a year they are presently allotted. They would also like to have a lot of input into what the content of that inservice should be. "So many times, we just are simply not asked what we need, and decisions are made by individuals far removed from the daily grind of the classroom. When we are asked, it is a courtesy, with the decision already having been made. I know many administrators think we are always complaining, but it is because we are placed in positions where we must be reactive instead of proactive," adds a teacher of the severely impaired. There are strong feelings regarding the competency testing movement. All teachers interviewed felt strongly that ineffective personnel must be removed from the profession, and that we can no longer afford to carry them. However, there are adamant feelings that competency testing cannot take the form of retrieval of information or testing the acquiring of a body of knowledge. "The qualities that people say they want in teachers are not measurable in test scores. How do you test for creativity, adaptability, love of learning, or the ability to inspire?"

Our look at the 1986 classroom can perhaps be viewed as a rest stop on our travels along the path of special education services. Today's teacher faces challenges that are not going to be solved with more rules, new texts, improved products. It is a transition time for the classroom teacher, and before we can carry on into the future, we need to refuel, revitalize, and recommit ourselves to our profession. We need nurturing and support through this difficult period, we need to remember how far we have come, and we need direction as to where we are headed. We need to know what it is we really want to accomplish with handicapped individuals as we head into this next century. We need affirmation of the important role we play in the lives of these handicapped individuals. "I touch the future. I teach." That is our code. And we will teach our children well, while preparing to address the challenges of that future.

> **"Could it be, yes it could...something's coming,**
> **something good, If I can wait - Something's coming,**
> **I don't know what it is, but it is gonna be great!"**
> (from Something's Coming by Stephen Sondheim)

The past was a battle for access, and in this past decade we have made great strides in getting kids in the door. Our quest for education for all handicapped children in many ways mimicked the civil rights movement. Advocates, parents, consumer groups and others have won (in Michigan) as much as we can get if we continue to believe that the only way to benefit handicapped students is through administrative changes, rules and laws. What has made us successful in the past will not necessarily carry us into the future. Our efforts to make programs more functional have resulted in the loss of a key element critical to successful classrooms. We need to put the "fun" back into functional. Teachers believe the challenges and direction for the future may be as easy as "A, B, C."

A: Attitudes into Action

Our venture toward the future direction of special education requires that we take the same bold strides towards improving our attitudes that we did in improving accessibility. Our examination of the current problems facing teachers revealed that they have encountered an emotional phenomenon that has created great stress and is adversely affecting the classroom. State and local administrative leadership must make every effort to assure professionals, parents and new people to the field that the classroom is awarded the status it deserves. This can be accomplished in large part by a change in their own attitude. One of the frustrations I have encountered since receiving award recognition is that my peers and my supervisors assume that I will now seek an administrative position. "That recognition will look great on your resume, and things are really opening up for women administrators," I was repeatedly advised. It is a paradox that what you receive recognition for, as a teacher, is what you must move away from to obtain respect in this field of education. Not one teacher I interviewed mentioned increased wages as a method of improving their opinion of themselves as professionals, but asked for respect, for value, and most of all, to be included in the policy making that so greatly impacts their lives.

Educational leadership has made great efforts to improve the teachers educational performance by addressing skill development in the cognitive domain. These same efforts will further enhance the teacher's skill in the classroom when inservice begins to address the affective domain of the educator. Teachers will then have the tools to meet the challenges presented with burn-out and emotional upheaval. And they will have better attitudes about themselves, the work they do, and the students they serve.

Let's also re-examine our attitudes about the handicapped and focus on the changes we need to make. First, they aren't individuals who need to be "fixed" or "cured" and this new attitude will require that we reconsider the remediation model for service delivery. And we must acknowledge that the individual who has a handicap is a total person, not a fragmented set of problems. The similarities between disabled and temporarily abled are far greater than their differences, and this makes the needs of handicapped children similar to the needs of their nonhandicapped peers. I am reminded of my favorite scene from the movie "Mask" where Cher, as Rusty Dennis, is enrolling her physically disabled son in a new public school. The administrator registers shock over the appearance of Rocky, and suggests that a "special school might be better able to meet his needs." "Do you teach math, biology, and algebra?", asks Ms. Dennis. The principal replies yes and the mom states, "Great, those are his needs."

B: Back to Basics, and Bridging Gaps

Special education teachers support moving back to basics, but their perception of "basics" may be a bit unique to those who equate the basics of education as reading, 'riting, and 'rithmetic. Let's value learning again, not solely what is learned. Let's celebrate learning again, not solely reward kids when they learn what we value. While we are in the process of getting back to basics, let's share what we have known all along, that we don't need to have general education, or regular education, or basic education, or special education, because our direction in the future is that all education is special. Education is a process in which children learn to live in their environment - and this requires that we individualize all education, not fit all kids into narrow curriculum processes because they appear to result in higher test scores. Handicapped individuals are beginning to advocate for themselves. Their increasing vocal ability requires that we really look at the needs of the students, and that we accept that the needs they express may be a bit different from when we spoke for them.

We must build bridges that will enable us to most effectively provide needed services to handicapped students in early childhood programs and in secondary programs. Collaboration with community agencies is a great start in this direction, and education can take a leadership role in establishing interagency agreements. We need to look beyond the walls of the classroom if we accept the belief that education must prepare a child to live in his environment. The educational environment may extend to include community based teachers, a classroom established in an industrial park, in a computer lab or in a performing arts center. New delivery systems within school settings must be explored, particularly with secondary and vocational education. The idea of departmentalized secondary education should be carefully examined, as it holds promise for future delivery of special education services. Teacher consultants in West Bloomfield, Michigan are team teaching with general education teachers. Their special education students are part of the general English and history courses, with the teacher consultant adapting the materials and concepts for the handicapped individuals. Working hand-in-hand, these teachers have begun to bridge a tremendous gap in secondary education.

Funds need to become available that will enable teachers to assist students in the transition from school to community life, whether it is in a group home, a work setting or other community activity. A recent conversation with a community placement professional working for the department of mental health highlighted this gap. She complained that severely handicapped individuals past school age are coming to her with no marketable skills for placement in jobs. I replied that teachers complain to me that they don't know what is available after school is over. We agreed that if community placement individuals could identify skills needed for placement and share them with school personnel, then teachers could begin to teach them. We didn't come to an immediate solution to this gap, but we began to talk, and to build a bridge.

Another gap that desperately needs to be "bridged" is with research. All teachers felt that research needs to be brought into the real world of education: the classroom. More research should be conducted by school systems on site. There needs to be more attempts by researchers at a university level to translate the results into practical applications that can be used in the classroom given the state guidelines in special education. There has been tremendous progress in the treatment of maladaptive behaviors among the severely retarded, but much of the studies are conducted in clinical settings and cannot be replicated with the ratios and restrictions found in public schools.

Bridges DO need to be built, and perhaps it is a function of the cooperatives and intermediate school districts to facilitate their construction. The Wayne County Intermediate School District has begun to include department of mental health personnel (group home workers, administrative staff, placement individuals) in any inservice for severely handicapped students. A recent correspondence from A.H.S. Community Services was inspiring. "Your organization has opened up a whole world of resources to us. Most important, you've developed a forum where we can sit down with educators. Our 'frontline' people, the group home workers, can meet your 'frontline' people, the teachers. Thank you."

C: Communication, Commitment, and Creativity

Let's begin to talk. Advocates, parents, administration, and teachers need to join forces and put the same energy into programming that we did to get the rules. We need to focus on synthesizing the rules into a package that is able to be creatively implemented into the classroom. We need more conversation with agencies to avoid duplication of services, and to insure that the services provided are the ones individuals need.

Let's demonstrate commitment at every level and in every relationship that impacts a child's life. Leadership at the state and federal level needs to know how their decisions greatly impact what happens in the classroom. School Boards of Education need to know that same message. Both groups need to have more direct contact with classroom programs, with handicapped students and teaching staff. They need to take a more active role in visiting special education programs, in meeting students and teachers so they can walk away with a visual picture that will assist them in decision making. Teachers need to revitalize and demand excellence of themselves and their peers. University personnel must make every effort to teach new and exciting ways of working with handicapped individuals, and their staff must revitalize also.

Let's demonstrate creativity. Let's value the ideas from teachers and provide them with a forum to try out new methodology. Let us accept the notion that all education is special, and as we travel into the future of special education, let us never forget that there are many paths to the same destination.

The Future of Special Education: A Parent's Case Study

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A PARENT'S CASE STUDY

The Early Years

My daughter Jane was born in May of 1970. The youngest of seven children, the first year of her life was extremely difficult for all of our family. She spent most of her time fretting, crying, without a full night's sleep...always restless. Feeding her was difficult, dressing and stimulating her was a chore and fun was almost nonexistent. My recollection of that year is colored by the absence of pictures of her, negative memories reported by her siblings, a threat of child abuse by her father, and exaggerated concerns by family and friends. It was a very confusing time for me. As a mother, I kept telling myself, "My child is alright," while another voice echoed, "Jane has a serious problem."

In the first year, I asked a lot of questions about her development. Doctor shopping increased the frustration. Eventually my demands for information and help provided answers. When Jane was 14 months old, a new doctor on the scene stated, "It's simple, Mom, this child is retarded!" And so, we began the long family trek to find help for Janie. My feelings in those days were desolation, hopelessness, anger, doubt, distrust of medical personnel, and utter inability to help my own child.

Some answers came quickly...and some answers took a long time. Within 24 hours after the diagnosis, quite by chance, my husband and I met a couple who were the parents of an eight-year-old son with mental retardation. These parents were involved in programs to help families of children with disabilities. This was a landmark event. It was the most helpful encounter in the first months after the diagnosis.

Our family, already burdened with having to assist one member deal with alcoholism, was faced with absorbing another significant stress. I had a great deal of "on the job training" with infants, but no education that prepared me to work with Jane. No one among our family and friends seemed to know what to do with her either. The diagnosing doctor recommended, "Take her home and keep her comfortable. When she is 4 years old (or thereabout) find a preschool for her." This seemed like a death sentence--were we supposed to listen to her crying for another two to three years? Six weeks later, unreferred, I walked into the Meyer Children's Rehabilitation Institute at the University of Nebraska Medical Center, a University Affiliated Facility, and asked for help.

From that day to this, Jane and I and the entire family have been receiving help. In this paper I want to highlight the events that were helpful and to describe events that were disappointing. I will begin with a description of our family and Jane's infancy. Early help to families is crucial. New families are so vulnerable after diagnosis. Only those parents that we had encountered quite by chance had relevant information. They shared their experiences in helping their son. They said that there was hope, that there were programs. They encouraged us to seek help and not to be afraid of the future.

Early Intervention

The first help came to us from a research program at Meyer's. This program was one of the early efforts funded by the Bureau for the Education of the Handicapped (BEH). This program was directed by Dr. Rune Simeonsson who was investigating the efficacy of early intervention. One of the reasons we were introduced to the program rapidly was because the project needed children under 2 years of age. Jane met the age requirement; therefore we got into the program. If that program had not been available, we would have been placed on a waiting list for an evaluation and services. At that time there was a 9-12 month delay in getting help. (Knowing the progress Jane made that first year, I do not like to think about the time we would have lost if we had not been able to begin services.) This program was a learning experience for Jane, me and all of our family. Some important changes that occurred as a result of this program were:

1. We were helped to understand Jane's disability. Factual information helped us accept her problems.

2. We gained a great deal of emotional support from Dr. Simeonsson and his staff. (One recollection is that of the nurse always holding Jane in her arms. It was very touching, because holding Jane was difficult at best. I appreciated that simple act.)

3. We learned that we could make a critical difference in Jane's life. For many months, I didn't believe that I could teach her.

4. We became a part of her teaching team. The whole family worked together to implement her programs.

5. We learned about developmental stages. The principles of normalization became a way of life. (I never knew that these principles embodied a philosophy. The dignity of risk, least restrictive environment, and age appropriateness became our watchwords.)

6. We learned about how systems did and didn't work...and how to get them to be responsive to Jane's needs.

7. We learned how to participate in planning meetings. I was in these meetings long before we knew the term I.E.P.

8. We learned how to evaluate services and programs.

Now, I don't want to mislead you. The processes decribed above took about three years. Most of the learning is still going on and at the rate we're going, it will continue to expand and grow as the years go by. This is one of the tricky points--the parents' tasks are ongoing, ever-changing and ever-challenging. The job doesn't really get done...Currently, I'm 15 years old in disability learning and experiences.

Preschool Programs

Jane participated in two preschool programs at Meyer's. The first was one hour per week. She was 2 1/2 years old at that time. Later that year, she started a two hour, five day a week program. The second program was a very structured setting with an outstanding curriculum. Fortunately, the first weeks of the program were focused on defining Jane's needs. Jane was assisted to slowly integrate into a group of ten children with various handicapping conditions. She learned many things, had good early speech intervention, and benefitted significantly from the experience. So did her mother. In two hours a mother can go to the beauty shop, grocery shop, read a book, talk to other parents, observe a class, or do nothing. What a revelation!

In 1974, due to a family crisis, I went to work as the Coordinator of the Pilot Parents Program of the Greater Omaha Association for Retarded Citizens. We moved into a new phase: I was out of the home and not able to work individually as much with Jane; I had to give myself permission to place Jane in a full day program. And eventually we learned that my working in the field benefitted Jane and the family.

After I went to work Jane was placed into the full day Coordinated Early Education Program (CEEP) of the Eastern Nebraska Office on Mental Retardation (ENCOR). CEEP was an integrated preschool/day-care program with nine nonhandicapped students and Jane. She had a resource teacher who assisted the regular preschool teacher and the day-care workers.

This was a wonderful experience. Jane's language increased dramatically.

Her social skills increased. She learned to fight, to share, to cuss, and to express her needs. She learned to interact with peers. No one had ever told me that little children are accepting. They have very few prejudices against those with differences, I learned, too.

Decision Time

The next steps weren't easy. Jane was doing well at the integrated preschool/day-care program. The public school in (1975) offered Jane a placement in a TMR class in a segregated setting. I was very concerned, and even fought with the person in charge of placement. I would not accept the placement in the TMR class. I didn't realize that I could have taken legal steps. The school personnel told me, "You really don't care about your child's education, or you would accept the placement. Don't you know that she is handicapped?" I opted to keep Jane in CEEP an additional year.

Grade School

I reviewed many alternatives before making a decision on placement. I chose a private school because the school offered the learning opportunities with realistic goals that I thought she could attain. My expectations for Jane were much higher than the public school system's assessment, and the private school agreed.

The good news was that Jane learned and succeeded. She began reading in first grade. The teacher observed that she had an outstanding memory and taught her to read by memorization. Later, phonics followed. She reads at about a 4th-5th grade level and enjoys it a great deal. She succeeded in many areas and had a full range of educational experiences and services.

The bad news was that she was in a segregated setting. No one prepared this parent to accept segregation after Jane had successfully participated in an integrated setting for two years. This decision was most difficult for me, as I value integration. To offset this, we used every method at school and at home to broaden her integrated experiences. I don't know if the professional community realizes how difficult it is to accept segregation after you've experienced integration for your child.

Other experience during those years stand out in my mind:

Father's Interaction:

Jane's father, who was very involved in his recovery process from alcoholism, did not take an active role in her educational planning. However, he did provide excellent support to her personally. They developed a unique, supportive friendship.

Siblings' Interactions:

In the beginning Jane's siblings experienced the same reactions that her father and I initially felt. They were confused, angry, ashamed, and frightened of the future...for her and for themselves. Her brother asked, "Who wants a retarded little sister?"

Jane's brothers and sisters slowly became adjusted to the reality of her learning difficulties. They then learned that she was their little sister...and that she needed some extra help. They provided a great deal of that help, love, and support. They still do.

Family Respite Needs:

Although we had good help from her siblings and other extended family members, we needed respite services. Even though I was involved in the coordination of respite services, we didn't use them. The same fears, guilt and concerns that hamper many parents from utilization of services were present in me. Eventually, when

I figured this out, Jane had wonderful respite services. We had dependable, economic, in and out of the home services. We all benefitted from respite. Appropriate, affordable respite service has been a problem since we moved to Northern Virginia.

Leisure Programs:

Jane used many leisure time programs, mostly in segregated settings. Some programs were quite affordable, some caused a real financial drain on the family. Later, these expenses were deductible on our income tax...that helped a little.

Financial Concerns:

Covering the added expenses for a child with a handicap causes a number of difficulties. It's hard to allocate so much time, energy, and financial resources for one family member. Often one feels caught in a bind. How can you meet the needs of your child who has a handicap? Even if it means other children or the parents don't have all their needs met. To achieve a sense of balance for families in many areas takes courage and a great deal of juggling.

Related Services:

Related services are often a problem. Getting a complete evaluation with proper amounts of therapy is often a result of the parents' tenacity and insistence. Jane was able to have extensive speech and language support. She has wonderful communication skills that are far above expectations for her I.Q. One of the most valuable resources has been that she has had the services of a movement therapist for over three years. This professional added a great deal of knowledge about Jane's condition and how to help her. It was a unique and valuable experience. The therapist was the one person who advised against modification of Jane's rocking behavior and substituted movement exercises that integrated the rocking into her total repertoire of behaviors. For the most part, this change in approach solved the problem.

Social/Sexual Development:

The growth and development of Jane's social skills, autonomy, self reliance, and self image have been an ongoing challenge. She began sex education at age 9. Each year the challenge increases as many of the supports from school and community diminish.

Pre-vocational Programs in Grade School:

Pre-vocational programs were a part of her training since she was 9 years old. Her first task was wiping off table tops after lunch. After that she learned to do a number of clean-up duties in the cafeteria.

Family Balance:

We learned how many demands would be placed on the family. Legislative advocacy became a permanent feature of our lives. Each of Jane's programs depended on public money. Our work as advocates put added stress on our family.

Trying to figure out how to balance the competing needs of each family member is a difficult task at best. Eventually we learned that Jane didn't always have to come first. Some professionals expected more involvement and commitment than we could give. A Little League ball game for her brother, a dance program for her sister, or a family vacation took precedence, and she survived.

We all learned a lot during those years.

Relocation:

The move to Northern Virginia, the result of my accepting a job with the National Information Center for Handicapped Children and Youth (NICHCY), took place in January, 1984. Had I realized the upheaval and difficulty that it was going to cause Jane, I probably would have backed out. We experienced major changes: absence of close family members, adjustment to a new neighborhood, insufficient family support services, small school versus large school differences, and many others.

Jane's behavior during these adolescent years has been difficult and has caused problems in her educational program. To get the optimal mix of discipline, positive reinforcement, educational and vocational training is a tremendous challenge for the educational system. It has been necessary for me to play a major role in advocating for her programs. Currently, she is receiving treatment support from a behavioral pediatrician. His services are making a critical difference.

Some of the experiences during these past two years have been:

School Size:

It's a lot different in a junior high school with 750 students than in a school with 65 classmates in Omaha. Jane's new high school has 1550 students, with numerous cultural and language differences.

Teachers:

Good teachers are good teachers...and we've found some super ones. Also, Jane always finds and makes friends with support staff. They have been terrific.

Labeling:

Labeling is alive and well. As a parent, I hate it. To have your child referred to as MMR is not my idea of a good idea. In high school, she is W.S., meaning Work Study, which is some better...but not a lot.

New Freedom:

Jane walked to school for the first time in her life. That was neat! (January, 1984 through April, 1985).

Least Restrictive Environment:

Our hopes for a more integrated program for Jane have not been met. During her last year in junior high, she did attend some integrated classes, such as: Home Economics, Art, Physical Education as well as integrated after school programs. However, we found in ninth grade there were no opportunities for integrated activities or classes. The teachers work hard to bring other students into the classroom, but it still doesn't provide as much integration as I think Jane should have.

Parents and Teachers:

I've enjoyed what you call the Parent/Professional Partnership because Jane's teachers and I do work together. The early interactions with Jane's teachers were very positive. They gave me the teaching tools that allowed me to help my child...this was the thing that I wanted the most.

Vocational Education:

Pre-vocational programs began in junior high. Vocational evaluation occurs in the ninth grade to plan for programs at the senior high level. There is an extensive array of programs for vocational training. We will work carefully to obtain the appropriate training. The availability of training for the world of work gives hope for independence for Jane in the future.

Physical Education:

Physical education presents concerns. The regular teacher who had Jane was totally uninformed about how to work with students with special needs. The new adaptive physical education class is for special education students and other students with needs. It never dawned on me that the nonhandicapped students would be pregnant teenage young women. I'm not prejudiced against these young women, but I do question this juxtaposition of students for service.

Leisure Time:

Leisure time and summer programs are not sufficient. Many programs are not age appropriate and are often expensive. After school programs during her ninth grade year are not really available for her, although we're working on opening more opportunities. After school programs are limited by the lack of available transportation. Jane uses a bus for special education students rather than the regular bus. We live outside the catchment area for the bus services used by the nondisabled students at her school. If she attended the local school she would be able to take "the late bus" just like other kids in the neighborhood. As it stands now, Jane must leave as soon as school ends. It is ironic that Jane has been able to use public transportation for the last four years. If the school Jane attended was in an area well served by public transportation, she would be able to stay after school and take the public bus home.

Home Life:

We have worked very hard to carry over the behavioral support that Jane receives at school into our home. She has an ironing business and does odd jobs to earn money. We've developed a support system using resources/friends' help from youthful neighbors.

Unmet Needs:

I have been working with the school to get program assistance with computers. Computer aided instruction has proven very effective in teaching Jane. This has been difficult. It doesn't seem like it should be this difficult. Also, we strive for more integration and social opportunities. Special Education teachers chaperoned football games and the school homecoming dance. We attend school plays and other programs. And Jane loves pep rallies.

In describing the details of Jane's education there are some points I need to emphasize:

1. Her growth and development, especially her emotional development, parallels that of her brothers and sisters. She certainly is more like them than different. Having raised the other children has helped me to identify her stages of development and to recognize "kid" behaviors.

2. I'm grateful that we never have had to go through a due process hearing to get her rights upheld, but we came close once. The problem was settled one step before due process.

3. Lack of integration has been the most frequently recurring problem and one that causes me considerable concern and apprehension for the future.

4. Jane's preparation for transition is extremely important. This preparation will dominate the next years of our lives. In special education, we need to do a better job in preparing young people for their social/sexual lives. We have had one bad experience in this area, even though she has had the benefit of many programs. I guess real life is more difficult to understand than experiences illustrated in textbooks.

Other Leaders Polled:

In preparing this paper, I interviewed many other parents regarding the impact of the law and their child. The responses in most cases were very similar. The parents support and appreciate the changes that have been made as a result of P.L. 94-142.

Ten years ago parents were struggling to get services in place. Integration was almost non-existent. The I.E.P. process was cumbersome and communication between parents and teachers was difficult.

Every parent discussed the progress their child had experienced during the ten years since 94-142. One mother said, "The year following 94-142 'real integration' began." Another commented, "Our daughter has come a million miles since 94-142."

The major concerns expressed were for implementation of the Least Restrictive Environment (LRE), state-of-the-art services, and future needs. Every parent mentioned the ongoing challenge to remove barriers to total involvement for their sons and daughters. In many cases, the programs are going well. A mother of a daughter with severe retardation stated, "Today, my daughter is in an outstanding program with a maximum amount of integration and opportunities."

The parents want to keep programs on the "cutting edge" with individualization for each student. Future concerns for parents came under two headings. First, parents had concerns for the transition of their child. Parents need assistance in planning and implementing this transition process. Most of the parents want their children to be as independent as possible, living in the community. Many of these parents were fearful that the community is not prepared. The second future concern was for the continuation and strengthening of the law. Future funding is an issue that many mentioned.

I have incorporated many of the ideas of the parents in the recommendations that follow:

1. Strengthen the provision of early support for families.
2. Mandate services from birth.
3. Eliminate categorical labels.
4. Strengthen the integration mandate including provision of a "Continuum of Service."
5. Encourage stronger direction and more funding for training and retraining of personnel: regular educators, secondary as well as elementary; principals and other administrators; special educators; and people who deliver related services. It is extremely important for all involved to understand how to integrate students.
6. Promote the establishment of a national system for delivery of state-of-the-art practices.
7. Promote thorough communication training for all involved in the I.E.P. process with more attention to mediation and conflict resolution to minimize adversarial relationships.
8. Ensure that legal aid and support for parents is available so that they have equal representation without financial duress when there is a need for litigation.
9. Since many students are still in private school placement, establish a means to allow these students to participate in regular school functions to reduce the isolation of these students.
10. Recognize the need for high quality respite care.
11. Improve and implement the state-of-the-art for transition for

students after 94-142.

12. Recognize the need for mandated services for adults who need a continuum of services.
13. Increase efforts to recruit persons with disabilities to be educators and administrators in the education field.
14. Increase efforts to serve students with learning disabilities efficiently and effectively.
15. The I.E.P.: a) improve educational teaming of parents and faculty. There should be a portion of the I.E.P. for recording the home goals; b) I.E.P. meetings could be conducted in the home; c) promote coordination and communication between parents and teachers; d) emphasize student involvement when appropriate; e) encourage parents to include after school programs in the I.E.P.
16. Parents should be involved in the teaching and training of educators in inservice programs as well as pre-service programs.
17. Ensure financial stability of programs under 94-142.

Conclusion:

Many times as I gathered information for this paper, I noted gaps in the interpretation of 94-142. Let me encourage all those who serve children with special needs to interpret the spirit as well as the letter of the law. Bridge the gaps and go that extra mile to serve children. Further, as we prepare for the future let us look to the regular education system as the key to the future of integrated, normalized, age appropriate programming for children who have disabilities.

There will never, ever be enough local, state or federal funds to duplicate what the regular education program already provides...integrated, normalized, age appropriate services.

Education for Exceptional Students Case Study: A Large District
1976-1986

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DESCRIPTION OF THE COMMUNITY

Jacksonville is a city of nearly 600,000 in northeastern Florida. The city is the largest in area in the country, sharing boundaries with the County of Duval. As a municipal government, the City Charter is unique within Florida, providing for consolidated city government including shared governmental services. As a result, the county school district shares legal, purchasing, computer services with other city agencies.

Duval is the seventeenth largest school district in the country and fourth largest of Florida's 67 county school districts with just over 100,000 students. Although Jacksonville has not had the rapid growth of much of other areas of Florida with tourist economies, business and military development are creating growth patterns which produce overcrowding of schools in many parts of the county. The county represents a combination of urban, suburban, and rural populations. The county population is approximately 24 percent minority with the school population at approximately 35 percent minority. The minority population is primarily black.

ESE PROGRAM DEVELOPMENT

For 60 years, the Duval County Public Schools have provided special education programs. In 1926, the first recorded public school class in the state of Florida began in Jacksonville, serving the mildly mentally retarded. By the 1958-59 school year, 3,167 special service units were being provided by 63 special education teachers. Program development in the school district began as follows:

1926 - Educable Mentally Handicapped
1950-51 - Physically Handicapped
Speech and Hearing Therapy
Visually Handicapped
1958-59 - Deaf
1959-60 - Gifted
1963-64 - Socially Maladjusted
Emotionally Handicapped
1966-67 - Trainable Mentally Handicapped
Homebound and Hospitalized
1967-68 - Specific Learning Disabled
1976-77 - Profoundly Mentally Handicapped
1978-79 - Socially Maladjusted removed from Exceptional Student Education to "Alternative Education" by state policy
1982-83 - Pregnant students removed from the definition of physically handicapped by state policy

The exceptional student education program now provides 18,355 units of service (duplicated count) for 15,860 students (unduplicated count). Ten years earlier (1976-77) there were approximately 8,000 fewer service units.* Yet there was a total K-12 membership of 10,000 more students. (See Table 1.)

There was clearly a commitment within the community to serve the educational needs of handicapped children. Providing appropriate educational and related services for all handicapped children has become a priority during the past decade. Efforts toward that goal began in Florida prior to the passage of P.L. 94-142. This paper addresses the changes which have taken place during the past ten years, current problems affecting the state of practice and problems which can be anticipated to affect future practice.

CHANGES DURING THE PAST TEN YEARS

Any changes in special education programs over the past decade must be placed in context with all of education. Declining then increasing enrollments, back to basics, competency testing, discipline problems, the excellence imperative, free and appropriate education for handicapped children have all affected the entire educational community. Like other large urban school districts across the nation, education in Duval County faced serious problems coming out of the 1960's. The county's high schools were disaccredited, teachers went on strike, and court-ordered desegregation focused attention on concerns not directly related to educational achievment. Student test scores were well below the national median, yet social promotion allowed many students to move to the next grade level without mastery of necessary skills. Efforts to increase services for exceptional children were not a priority in an environment of limited resources and other serious educational and social problems.

In 1976, Duval County Public Schools began a campaign to reform the entire educational system. Although the high schools had already been reaccredited with the Southern Association of Colleges and Schools, much remained to regain public confidence and provide quality educational programs for all students. A new superintendent began the implementation of a new design with plans to get all schools accredited, elementary and special centers as well as secondary schools. Increased emphasis on basic educational skills, elimination of social promotion, implementation of a systematic pupil progression plan and strict code of student conduct were intended to raise the standards of expectancy systemwide. Believing that family support is a key to

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*Unduplicated count figures are not available.

TABLE 1

DUVAL COUNTY PUBLIC SCHOOLS
EXCEPTIONAL STUDENT EDUCATION PROGRAMS
1976-77 - 1985-86

Student Membership	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86
Educable Mentally Handicapped	1717	1821	1664	1638	1512	1355	1237	1196	1167	1178
Trainable Mentally Handicapped	469	391	385	363	368	3 76	350	349	369	365
Physically Handicapped	192	238	197	215	218	228	154	155	163	181
Physical/Occupational Therapy	163	229	224	280	242	306	336	346	382	412
Speech, Language, Hearing (Part-time)	3155	4012	3464	3640	4126	4854	5153	5521	5879	6353
Speech, Language, Hearing* (Full-time)	133	159	97	136	138	161	138	134	157	147
Visually Handicapped (Part-time)	102	91	84	86	80	102	107	98	77	98
Visually Handicapped (Full-time)	28	28	13	24	20	9	20	21	27	27
Emotionally Handicapped (Part-time)	449	851	948	1427	1983	2645	2440	1927	1748	1676
Emotionally Handicapped (Full-time)	510	485	546	486	569	694	652	607	846	955

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*Definition included only Deaf between 1976-77 and 1983-84. Beginning in 1984-85, the classification expanded to include the severely language impaired.

TABLE I
(continued)
DUVAL COUNTY PUBLIC SCHOOLS
EXCEPTIONAL STUDENT EDUCATION PROGRAMS
1976-77 - 1985-86

Student Membership	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86
Socially Maladjusted	395	237	-	-	-	-	-	-	-	-
Specific Learning Disability (Part-time)	1608	2016	2070	2215	2382	2750	2754	2473	2381	2558
Specific Learning Disability (Full-time)	434	592	599	534	535	731	783	776	1176	1371
Gifted (Part-time)	986	1181	1164	1600	2031	2475	2570	2749	2772	2595
Hospital/Homebound	141	160	117	156	114	119	143	163	186	170
Severely/Profoundly Handicapped	92	199	200	147	134	179	175	201	260	269
TOTAL ESE Student Membership (Duplicated)	10,574	12,690	11,772	12,937	14,452	17,184	17,012	16,716	17,590	18,355
TOTAL Student Membership (K-12)	110,670	108,834	105,420	102,560	100,965	99,022	98,602	97,879	98,903	100,732

academic success, parents were actively encouraged to get involved in their child's education. An annual Open House brings over 100,000 parents and community members to school each fall. An active countywide PTA has representation in every school in the district, representing parental concerns about all children including the handicapped and gifted.

The reforms activated by the superintendent provided both opportunities and difficulties in developing a quality special education program given the state and federal mandates occurring at the same time. In this district, the challenge was met with optimism and the clear expectation from the superintendent and the school board that exceptional student programs would be improved right along with the basic programs.

EDUCATION FOR ALL EXCEPTIONAL CHILDREN

This school district, along with the rest of Florida, was on the way to providing educational services for all handicapped children when P.L. 94-142 was passed. Multidistrict programs served students in low incidence programs from surrounding smaller school districts. Multiagency agreements between the Public Schools and the Department of Health and Rehabilitative Services provided for joint agency involvement in residential treatment of severely emotionally disturbed students and vocational counseling and placement of certain handicapped children including primarily the mildly mentally handicapped. The Division of Blind Services with the school district provided early identification of visually impaired children, services to parents, and vocational preparation. Children identified as visually impaired were provided services at home beginning at birth for the first time in 1972. Hearing impaired children received similar home instruction beginning at birth for the first time in 1975.

Structured curricula were developed by the district for trainable mentally handicapped and gifted students and adopted from another Florida district (Hillsborough) for the educable mentally handicapped. Procedures were underway to improve identification procedures by creating a multidisciplinary team, called the Child Study Team, which included an educational diagnostician, psychologist, and social worker. The foundation was in place when P.L. 94-142 was passed. In 1976-77 a total of 10,574 exceptional students received special services (duplicated). The total number of handicapped children receiving services now totals 15,860, with a duplicated count of 18,355. All indications are that children who are handicapped are being "found" prior to coming to school or early in their school experience.

After a peak enrollment of 1821 students in 1977-78, this program has declined each year until this school year, when a slight increase is noted. The increase parallels enrollment increases in early grades throughout the district. All educable mentally handicapped students are served in special classes in regular schools throughout the district.

Like many other urban school districts, the percentage of black students in the EMH program is significantly higher than the percentage in the general population. Investigation by the Office of Civil Rights as a result of a 1979 complaint indicated that evaluation procedures and application of evaluation results to eligibility criteria were appropriately addressed. However, concern for this problem has prompted the district to evaluate the identification of students for this program. As a result of strengthening nondiscriminatory testing practices combined with reforms in school practices for intervening in the educational program of children referred for possible EMH placement, prior to referral the percentage of black children in the EMH program has been reduced from 73 percent in 1982-83 to 67 percent in 1985-86. With a total black school population of just over 35 percent, this figure remains uncomfortably high.

The Trainable Mentally Handicapped student population has been reduced from 469 ten years ago to 365 at present. Some population increase was experienced with the deinstitutionalization of students formerly placed in state-operated institutions for the mentally retarded. Jacksonville is a regional site for "Cluster" homes where children and adults who are moderately to profoundly mentally handicapped reside. Although a handful of secondary students residing there were placed in our trainable program, the majority live at home.

Factors affecting a population decrease were clearly more influential. Although we cannot identify causal relationships, analysis of grade level enrollment in this program indicates that early intervention and differential diagnosis have pushed more students into the mildly handicapped range of classification.

Ten years ago children identified as trainable were all educated in separate center facilities. Three years ago the district began moving elementary students to regular elementary schools. Students in Grades K-4 are housed in two different regular school buildings within special classes. Attempts to move all elementary age students out of special centers into regular schools has been stalled as a result of increased enrollment in the elementary grades.

Ten years ago, trainable children were not expected to learn much in the way of functional literacy skills or to prepare for work in the mainstream. Advances in expectations for these children have brought about significant changes in the academic instructional program and in vocational preparation. The attitude of potential employers remains a continuing challenge. As success stories mount, however, these attitudes are slowly changing.

The Physically Handicapped definition included "young parents" prior to the 1982-83 school year. As a result, the number of students identified for this program appears to take an abrupt drop. The fact is that the physically handicapped program has been increasing steadily during the past decade. Not only the numbers of students, but the complexity and severity of the disabilities appear to be increasing. As medical science saves babies at birth and childhood accident victims, increasing numbers of children are in need of specialized educational and medical support services to benefit from education. Finding adequate numbers of staff qualified to meet the needs of children with physical disabilities, particularly occupational therapists and physical therapists is a continuing problem.

Through a combination of district employed therapists and contracted services, this district has met minimum therapy needs during the past two years. There have been leaner years, however, when no amount of money would have attracted the qualified therapists needed. Continuing shortages of physical and occupational therapists may be expected in the future given the number entering training each year and increased demand from school districts, hospitals, rehabilitation programs, nursing homes, and home health agencies.

Speech, Language, and Hearing programs are divided for funding purposes into part-time and full-time programs. Students in need of twelve hours or less per week in this program are considered part-time. The number of students receiving speech, language, and/or hearing therapy on a part-time basis has more than doubled during the past ten years. Nearly half of the students in the speech and language program are also identified for other exceptional student programs. Early identification of speech and language problems and secondary program development appear to account for the dramatic increase in students eligible for this program.

The full-time classification of "severely language impaired" was added by the district four years ago with funding allocation by the Florida Education Finance Program two years later. This new program serves three to eight-year-olds with severe language disabilities which cannot be explained by any other identifiable disability. In the four years this program has been in operation, many children have been successfully graduated into regular classes in the primary grades. Ten years ago these children would have been labelled EMH, with permanent effects on their lives.

Hearing impaired programs have experienced a gradual decline over the past ten years. Since enrollment figures in Table 1 include a combination of speech, language, and hearing populations, the trend in incidence of hearing impairments is hidden. This year there are 112 full-time and 33 part-time hearing impaired students enrolled. Graduation of the "Rubella" babies born in the sixties and the proximity to Jacksonville of the Florida School for the Deaf and the Blind has affected enrollment.

The hearing impaired programs offer to children and their families the option of education programs emphasizing oral-aural communication as well as total communication systems. Students may be served in a full-time special education class, a regular class with interpreters or regular class instruction with consultant assistance, depending on their need. The addition of interpreters for general class instruction in academics and vocational education and itinerant consulting teachers has been made during the last few years. This program is a multicounty service unit, drawing children from four surrounding Florida school districts as well as one south Georgia county.

Visually Impaired students are the lowest incidence program in the district. Like hearing, this is a multidistrict program serving students from three surrounding school districts. Visually handicapped children spend a larger amount of time in special education programs in the early years of school, learning the unique skills required for success in school, and functioning independently at home and in the community. By sixth grade, at the latest, all of our visually impaired students are in the "part-time" program, with academic courses generally taken in regular programs.

With the close cooperation of the Division of Blind Services and teachers and support staff in the district, children in this program are among the most successfully mainstreamed. Technological advances in supporting learning for visually impaired students have been most dramatic in this instructional program. Making appropriate purchases of dazzling new gadgets is a challenge presented to administrators as the technology changes so quickly, and knowledge of results is so limited.

The primary problem faced in implementing the program for visually impaired students is keeping staff positions filled. Specialization in mobility and orientation is especially difficult to find.

The Emotionally Handicapped program is divided for funding purposes into part-time and full-time programs. Students requiring twelve hours or less are considered part-time. Twelve hours requires full-time placement classification, although students may still be mainstreamed for a part of the day. In 1976, the EH program represented less than 1 percent of the total school population. In 1981-82, a total of 3339 students were in membership representing 3.3 percent of the total student population. Because the number of students enrolled in this program was increasing so dramatically, the district reviewed evaluation practices, intervention requirements in general education prior to referral for evaluation and causal factors for the increases.

Reforms in identification of students labelled emotionally handicapped have resulted in a reduction of incidence from 3.3 percent to 2.6 percent. The district will continue to refine the identification process and assist general education teachers to expand their repertoire of learning strategies and classroom management skills.

During the late seventies, the school district implemented a program of competency testing and minimum performance requirements which specified an achievement level for students to move from one grade to the next. This educational reform has benefited large numbers of students. It also created a need for general educators to find a place for children who were slow learners or behavior problems and were not meeting promotion standards as a result.

The criteria for eligibility for "emotionally handicapped" leaves a great deal of room for interpretation by evaluators. With pressure from school-based staff, the Child Study Team, in an attempt to help the failing child, found enough emotional indicators to approve program eligibility. While students with emotional problems need supportive services, this director seriously doubts that large numbers of students labelled as emotionally handicapped really need to be instructed in "EH Math."

Socially Maladjusted programs were eliminated from the exceptional student education program in 1978-79. Students in detention and half-way houses with delinquency records were included in this program. When this program was eliminated, an alternative education program for unsuccessful and disruptive students was initiated. The alternative education program is a part of the basic program.

The Specific Learning Disabilities program has been a growth program, serving 1.8 percent of the total school population in 1976 and 3.9 percent of the present school population. During the past two years, there has been a significant increase in both the numbers of students identified and the percentage of time spent in the program. There are many more students with learning problems referred who are not found eligible for the program. Parents and teachers both push for SLD classification with students whose learning problems are less severe than the criteria provides. Yet they are failing in the basic academic programs.

Like the EH program, the SLD program provides for part-time and full-time program classifications and has become a desirable alternative to basic education failure. This director has serious questions regarding the value of special education classification for increasingly higher numbers of academically troubled children in regular classrooms.

A major policy issue of concern for parents of learning disabled children facing secondary programs is their accessibility to general education program course offerings with adapted methodology and learning strategies. This district has worked hard to raise the standard of expectancy for all students. How much modification in instructional strategies and testing can be tolerated without reducing these newly established academic standards? How can quality instruction be assured in instructional programs when teachers are certified in SLD but not the subject area taught? These are questions school administrators and parents of learning disabled children are facing. They are not always in agreement on the answers.

Gifted students are included as a part of the exceptional student education program in Florida with all the safeguards and procedures provided handicapped children. In 1976, the incidence of gifted children being served in this school district was 0.90 percent of the total school population. The highest incidence since the program began occurred in 1983-84 and 1984-85 when 2.8 percent of the school-aged population was in special classes for gifted children. In Florida, gifted programs are limited to the student who has "...superior intellectual development and is capable of high performance. The mental development of a gifted student is two standard deviations or more above the mean." (Florida State Board of Education Rule 6A.6.3019 F.A.C.)

By guidelines in the Florida Education Finance Program, the gifted program provides for twelve hours or less per week in gifted classes at the higher funding weight. In elementary schools, programs were established to pull the student from the regular class one day each week for placement in a gifted center. Schools are clustered to provide for grade-level grouping in the gifted class. In junior high schools (Grades 7-9) students are grouped together for one or more subjects taught by a teacher of the gifted or by the teacher of the subject area of the course, who may or may not have background in "gifted education."

The senior high school gifted student is counseled to take advanced and advanced placement courses to meet their individual needs. A successful mentorship program was established for senior high school students to follow their area of interest through an elective credit of one semester or more. Students who qualified were matched with a community member in business or a profession or a university faculty member to pursue advanced practical study. Projects resulting from this program won national and international science awards, produced published works and developed original works of art. It is ironical that the program lost momentum when elective credit programs were reduced significantly in the wake of the Florida Legislature's efffforts to raise standards of academic excellence by increasing the number of required academic credits for graduation.

The program for gifted students is in a state of transition in this district and others in Florida. In many respects, our program, with emphasis on problem-solving skills, is not at the center of the "excellence movement." Many questions are arising as to the place of gifted education in the total school program. Eligibility criteria, evaluation procedures, program objectives and design all need to be evaluated in the context of "special education."

The Homebound and Hospitalized program is a delivery system rather than a program, by design. Students are eligible for the program if a physician certifies that they will be out of school for fifteen days or more. The goal of this program is to provide the bridge needed for the student to continue in their school program when they are medically able. Occasionally a student will complete their entire educational program as a homebound student due to their medical condition.

Full-time teachers (currently 24) are employed in the homebound/hospitalized program with a variety of certifications and teaching experiences. Additional part-time teachers are involved when an area of specialization cannot be taught by the staff teachers. Teachers serve all hospitals in the county, teaching not only Duval County students, but any child hospitalized here who resides in another community.

This district pioneered the teleclass system in Florida, using telephone consoles to teach a subject to several students at one time. Combined with home visits, this method has improved the quality of specialized instruction for the student who is not well enough to attend school, but can continue instruction at home or in the hospital. Recently issues involving services to drug and alcohol rehabilitation programs and psychiatric hospitals have affected large districts in Florida where such residential programs are rapidly spreading. The State Department of Education has defined homebound and hospitalized instruction to include only one-to-one instruction or group teleclass instruction. Since these residential programs result in grouping for instruction when appropriate to the course and grade level, some districts have come into conflict with the DOE interpretation of the rule. Because of the student turnover in these programs, quality instructional programs using any other instructional delivery system would be difficult to maintain in the opinion of many local district directors.

The Profoundly Handicapped program includes the classifications of profoundly mentally handicapped, deaf-blind, autistic, and severely emotionally disturbed. While the cost factor as established in the Florida Educational Finance Program is the same, the program design, facilities, and medical support needs can be, and usually are, very different.

Profoundly Mentally Handicapped students are served in special centers with specialized staff and medical support personnel. Students identified for this program were almost exclusively served in institutional settings ten years ago, if they survived. The majority of our students live at home, although some reside in cluster home facilities as described above under "the trainable." Defining the meaning of "education" for the profoundly mentally handicapped has been a difficult issue for school boards, superintendents, and general and special educators.

In 1976, the program for profoundly mentally handicapped students began officially as a program classification available to all identified students. Prior to 1976-77, children classified at a functional level below trainable may have been served in the trainable center if there was room and if adequate staff were available.

If qualified personnel or space were not available, letters were sent to parents informing them that they would need to keep their child at home since the school district was unable to place their child. District staff assisted parents in contacting Developmental Disabilities of Health and Rehabilitative Services (HRS) for residential placement. This was a legally appropriate action prior to 1976.

This district responded to the mandate to serve all profoundly mentally handicapped by renovating a building in the geographic center of the city as a specialized center. The center served children from all surrounding school districts through multidistrict programs. The incidence of students from surrounding districts has increased sufficiently that most have initiated their own programs.

Expectations of students functioning as profoundly mentally handicapped have not yet reached a stable level. A competency-based, task-specific curriculum was written by teachers, district staff, and university consultants together. The quality of life of children and their families has changed significantly over the past ten years as a result of this program.

Supportive services for families have not kept pace with the school program, however. Respite care services, for example, were available through Health and Rehabilitative Services (HRS) prior to 1978. State funding shortfalls have resulted in cuts to HRS, thus affecting support programs. At the same time, deinstitutionalization has shifted full-care responsibility back to the home.

Deaf-Blind students must meet the eligibility criteria as both hearing impaired and visually impaired. Since the functioning level may range from severely developmentally disabled to gifted, program placement varies entirely on the currently demonstrated functioning of the student. This district has seldom identified a deaf-blind student during the past ten years.

The Autistic program continues to provide both a diagnostic and placement challenge. Autistic children have been served in the center for profoundly handicapaped or the trainable center, depending on their functioning level. This past school year, two elementary autistic classes were placed in regular elementary schools.

The program for **Severely Emotionally Disturbed** has been at the center of a statewide effort to develop a multiagency network to include all 67 school districts and all 11 Health and Rehabilitative Services districts. The seven school districts in the HRS District in northeastern Florida were among the first regional projects funded by the State of Florida three years ago.

The Severely Emotionally Disturbed Network of HRS District IV has developed joint criteria, evaluation procedures, placement procedures and cost sharing policies to identify and place severely emotionally disturbed students. Jointly funded day treatment and residential treatment programs have been developed and expanded as a result of multiagency efforts. More students are able to remain within the district for mental health treatment and appropriate educational programs, as a result.

The Preschool Handicapped program began prior to the passage of P.L. 94-142. For deaf and blind babies programs are provided as soon after birth as they can be identified. Our youngest was four days old. From birth through age two, teachers work with parents at home. Plans to initiate a similar home instruction program for severely and profoundly handicapped are underway for the next school year. Physically impaired, visually impaired, hearing impaired, severely language impaired children and severely emotionally disturbed children are also served beginning at age three.

"Developmental" classes for mildly handicapped or children with developmental delays ages three to five were offered on a limited basis prior to 1977. Classification of students in the preschool program as EMH, EH, and SLD evolved, apparently as a result of state funding reforms rather than professional wisdom.

Although Florida has not yet mandated preschool programs for all handicapped children, pressure is increasing from parents and professionals to do so. Many school districts are resisting mandated programs for children from three to five primarily due to the heavy growth demands on elementary programs due to increased birth rates and total population growth throughout the state. The press of capital outlay funding for educational facilities is staggering without adding new programs. The shortage of teachers qualified to serve increasing numbers of young children is also of concern.

Duval County originated a multiagency commission for preschool education in 1985. The commission has operated for the past two years to facilitate communication among public and private agencies serving preschool aged special needs children. Agencies like Cerebral Palsy and the Duval Association for Retarded Citizens, Children's Medical Services of HRS, university training personnel in early childhood and special education programs have joined together to improve communications and training programs. A total of 18 agencies are now involved.

Our goal is to develop educational and support service options in agency settings as well as school settings. The State Department of Education is encouraging similar multiagency efforts throughout the state. Three model projects have been funded in small, middle-sized, and large districts in the state.

MULTIDISCIPLINARY EVALUATION

The number of children served in district ESE programs has nearly doubled during the past ten years. In addition to addressing the heavy referral rate created by state and federal mandates to educate the handicapped, major educationl policy reforms have caused general education to increasingly demand services from special education.

Ten years ago, this district began a revolution in the identification of handicapped and gifted children. As with most revolutions, there was dissension among the ranks. Educational diagnosticians, social workers, psychologists, and counselors did not agree on who should take the lead in establishing eligibility. Backlogs in children to be evaluated reportedly exceeded 1600 with referral to placement taking more than a full year for some programs during the late seventies.

The efforts to establish streamlined procedures for identification required effective team work. The district reorganized in 1978, removing Exceptional Student Education from the Division of Curriculum and Instruction to the Educational Services Division, placing Student Services (psychologists, social workers, and counselors) and ESE sections together under the same Assistant Superintendent. Under new leadership, communication gradually improved and the process for removing referral backlogs began.

A systematic plan was needed to remove the evaluation backlog and streamline the identification process created by both the numbers of referrals and the state and federal structure for procedural safeguards in identification, evaluation, and placement of handicapped students. The complexity of this task was compounded by the size of the district. Developing and implementing standardized procedures across 144 schools requires a well organized management plan and a lot of good luck. Major changes implemented over the decade include:

- Creation of effective multidisciplinary team decision making at the school level including the principal, counselors, teachers at the school, and psychologists, social workers and ESE admissions specialists from the district level. Through team building efforts over several years, the Child Study Team functions harmoniously and efficiently throughout the system.

- Scheduling of Child Study Teams to serve each school on a master schedule with regular visits to schools by the district level Child Study Team members. The schedule included timelines for initiating referrals, standardized documentation and observation requirements clearly describing how the school had worked to solve the child's problems using resources available in the schools.

- Establishing a two-step process in referring the child to the Child Study Team for evaluation or reevaluation. The screening meeting reviews extant evaluation data, parent conference results, observations, interventions regarding the behavior of the child. The staffing meeting follows individual, multidisciplinary evaluation which was deemed appropriate at the screening meeting. At the staffing meeting, eligibility was recommended or not. Parents are invited to attend both meetings.

- Development of a student management information system to track students from initial referral through placement and reevaluation. Budget and personnel projection data derived from this data base have significantly improved our ability to manage ESE programs.

- Establishing temporary placement procedures for students moving into the district avoided unnecessary delays in continuing ESE placement of students new to the district.

- Timelines from initial referral (screening) to placement improved to an average of 30.7 working days.

- In spite of continuing efforts in training staff at the district level and school level, problems continued with understanding what is behind the paperwork requirement to complete "the packet" describing the results of conferences, interventions, and observations as schools work with academic or behavioral problems with a child. A recent survey of school personnel regarding the effectiveness of the identification process revealed this perspective at one school. "It would work much faster if we didn't have to go through all those interventions." Although such attitudes are changing, there remains work to be done.

- Establishment of a statewide network for child find and learning resources was implemented. The Florida Diagnostic and Learning Resources is administered by Duval County to serve two adjacent school districts as well as our own. Community awareness activities, child find, indepth diagnostic evaluations for children not in school, inservice for ESE teachers, parent education are just a few of the resources available through FDLRS. The project is funded across the state by the state's share of P.L. 94-142 dollars.

ADMINISTRATION OF SPECIAL EDUCATION

Focus on compliance with state and federal guidelines to identify, evaluate, place, secure personnel, write IEP's has caused large district administrators to attend first to policy and procedures designed to stay in compliance with audit requirements and establish processes to document everything which may be an issue for litigation. The combination of state and federal grant requirements, state cost accounting requirements, and changing policy requiring local school board action generally more frequently than annually have changed the competencies required for special education program administrators. Indepth knowledge of law, finance, and organizational systems is more significant than program knowledge, methodology, curriculum.

Program development has focused on procedures to avoid litigation and assure compliance rather than instructional improvement. Although we have made progress in defining instructional program objectives, expanding program options, and developing curriculum, this effort has not had the same level of attention as the "procedural" issues. With persistence, the focus is turning more to instructional quality.

DISCIPLINE OF HANDICAPPED CHILDREN

During the past five years, districts in Florida have been influenced by a court decision issued by the United States Court of Appeals, Fifth Circuit in S-1 versus Turlington, dealing with the expulsion of handicapped students. As a result of these rule revisions, school districts were required to develop written policies and procedures regarding the discipline of handicapped children.

As an urban community Duval County has its share of serious discipline problems. A strict code of student conduct had been in effect which included expulsion for serious violations (assaults, weapons, drugs). To implement the new State Board of Education Rule governing discipline of the handicapped, the district took the following action:

- Developed procedures for schools to follow, emphasizing behavior management plans intended to prevent students from serious code of conduct offenses.

- Developed more programming options for students with needs for highly structured, supported school environment.

- Added a district staff unit of special educators, social workers, and psychologists to intervene with school personnel, students, and parents when serious discipline problems occurred.

- Added mental health support services under contract with a local mental health agency to provide therapeutic support for students in conflict with their school environment which significantly affected their learning and the learning of other students.

AVAILABILITY OF QUALIFIED STAFF

Throughout the decade, the availability of qualified staff has been and continues to be a problem. With anticipated program growth in general and special education, predictions are that this problem will grow worse in this part of the country. Teaching staff in specialized areas like vision or profoundly handicapped, teachers with training in both ESE and secondary academic or vocational training are scarce. Specialized related service personnel with knowledge of ESE students are nearly always vacant including counselors, psychologists, social workers, physical therapists, occupational therapists, and speech therapists.

ATTITUDES

Probably the most significant change during the past ten years is in ATTITUDE. The behavior of students and administrators increasingly demonstrates an attitude that these are "our" children, not "your" children. Parents and advocates are beginning to trust us again and can work with us to find solutions to difficult problems. The adversarial role created with P.L.94-142 seems to be mellowing with an emphasis on mediation rather than due process hearing.

A former principal of a large secondary school serving students with severe physical, vision, and hearing handicaps illustrated this attitude change when he said, "We took those children in several years ago because we had a new accessible building. We thought we were being altruistic and doing these poor children a big favor. What we didn't know is that they would teach us much more than we could ever teach them - about what it is to be a human being. I wouldn't trade my experience with special needs kids for anything."

PROBLEMS AFFECTING THE STATE OF PRACTICE

Discussion of changes during the past ten years focused on many issues which also currently affect the practice of special education presently. A summary of current issues this district has identified for planned program improvement include:

- Identification and placement procedures designed to improve the quality of the placement decision-making process as an important factor in assuring education in the least restrictive environment.

- Consistency from school to school in the application of eligibility criteria especially with the learning disabled and the emotionally handicapped.

- Need to strengthen the capacity of regular education to address learning and behavior problems.

- Access research available to school districts regarding the benefits of technology to improve instructional programs for ESE students.

- Access for increasing numbers of handicapped students to vocational evaluation, training programs, and supportive work programs to ensure real access to jobs.

- Continuation of multiagency efforts to expand services for the severely emotionally disturbed, preschool-aged children and transitional students preparing to leave school.

- Provision of appropriate services to handicapped children entering the juvenile justice system.

- Enhanced research opportunities to learn how to provide for the needs of students who are the medical survivors of accidents and severe illnesses. Trauma victims need unique approaches to education and rehabilitation.

- Defining instructional groupings of children based on functioning level rather than classification of handicap.

- Interpretation of least restrictive alternative within the context of the child's entire educational program. For blind and deaf children, early restrictive programming allows children opportunities for success in learning how to learn, enhancing their opportunities for success in the regular program in later years. For some developmentally disabled children, early placement in a less restrictive environment can open opportunities for language acquisition and modeling of social behaviors with more restrictive placement in later years for specialized vocational skill development. This may be a more successful path toward independence.

Decisions for the application of least restrictive environment need to remain close to the child. The processes are in place to assure problem solving for the benefit of each child, if they are allowed to work.

PROBLEMS ANTICIPATED TO AFFECT FUTURE PRACTICES

In A Nation at Risk: The Imperative for Educational Reform, the President's Commission on Excellence in Education said:

> "We define 'excellence' to mean several related things. At the level of the individual learner, it means performing on the boundary of individual ability in ways that test and push back personal limits, in school and in the workplace. Excellence characterizes a school or college that sets high expectations and goals for all learners, then tries in every way possible to help students reach them."

Defining the problems affecting future practices is simple. Will the handicapped and the gifted student have the same access to "test and push back personal limits" as any child? Will the schools of the nation set "high expectations and goals for all learners," including the exceptional? Defining the solutions is something else.

The Professional Odyssey of Dr. Kairo Aorist

A Case Study of Teacher Preparation in Special Education

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The PROFESSIONAL ODYSSEY OF DR. KAIRO AORIST*

A Case Study of Teacher Preparation in Special Education

Preface

This paper traces the 25-year professional life of Kairo Aorist, a professional woman born during the 1940's and raised and educated in the Midwest. She attended her state university which, as luck would have it, was an early recipient of the federal largesse in special education. Recruited into the field of special education, she taught EMR students before returning to graduate school on a full fellowship (PL 88-164) to work on her MA Degree in Special Education. Impressed with the intellect, the humor, and the energy of her young professors (all of whom had pursued their graduate degrees under PL 85-926 fellowships), and excited by the dynamism and social usefulness of the field, she stayed to complete her Ph.D.

Along the way she had the opportunity for involvement in two innovative demonstration projects, both federally funded: the first (about 1966) focused on collaboration between special education and vocational rehabilitation in developing work-study programs to promote the vocational transition of EMR adolescents; the second (in 1968) piloted a consultation approach to serving learning disabled students in their regular classroom placements (today referred to as the mainstream). Infected by the general optimism of the field and imbued with the power of behaviorism to significantly impact on the skill attainment, functional level, and quality of life of the handicapped, she received her degree in 1969 and accepted a position in the growing special education department of Hopewell State University in the Midwest.

The three vignettes cover three separate academic years in her professional odyssey, each a decade after the other: 1975-1976; 1985-1986; and 1995-1996. They represent an attempt through a longitudinal case-study approach to reflect the past, present, and future of teacher education in special education.

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*Kairo is derived from kairos meaning "crucial moment" and Aorist from the Greek verb form for "past tense without indicating whether or not the action has been completed, repeated, or continued."

"Having Been Present At the Creation . . . ."

Academic Year 1975-1976

As the 1975-1976 academic year eased toward its conclusion, Dr. Aorist found herself enthusiastic about the general state of her world. It truly was the best of times--for society, for the field of special education, and for herself as a professional. A productive (e.g., published) assistant professor who had just received word that her bid for tenure and promotion had been approved, she knew her contributions (e.g., articles as well as course development) in the areas of behavior management and competency-based teacher education were viewed by her colleagues as significant. They were part of a wave of improved instructional technologies that were shaping societal concepts about the potential of handicapped individuals and the manner in which services should be delivered. She was fortunate to have gained a faculty position in one of the departments of special education created at senior universities in response to the growing demands for special education teacher preparation. Comprised of dynamic, young (average age 35.8) faculty committed to developing the best teacher preparation program in special education in the nation, her departmental colleagues viewed special education as the experimental arm of education, differentiated from general teacher education by the former's scientific, empirical, and theoretical orientation.

Having obtained their graduate degrees under federal fellowship programs of the 1960s, they were a group of enthusiasts who had come of age during the Civil Rights Movement (in which most had at least dabbled as undergraduate students), the launching of the space exploration programs, the tragedy of a Vietnam involvement (resolved by an antiwar movement in which most of Dr. Aorist's contemporaries had been too engrossed in launching their careers to participate actively), the Women's Movement and, most recently, the conclusion of Watergate with the denouement of an entire Presidential administration. It was a time of populist empowerment, a time when individuals were convinced of their ability to shape events, a time of almost boundless optimism that wrongs could be set right and that good could prevail.

Within special education this optimism was manifest in a variety of ways. Wolfensberger's formulation of the concept of "normalization" had captured the imagination of professionals in special education and led to a reexamination of the labeling process. As a part of this reexamination, ten federal agencies jointly sponsored the Project on the Classification of Exceptional Children; Hobb's two volume edited work, Issues in the Classification of Children: A Sourcebook on Categories, Labels, and Their Consequences and his The Futures of Children resulted. Early intervention studies were demonstrating remarkable effects of early childhood education for the mentally retarded, and the work of Marc Gold and others was reformulating the field's concepts about the vocational potential of the handicapped. Hewett's engineered classroom and Hobb's Project RE-ED were piloting new approaches to working with behaviorally disordered and/or emotionally disturbed students. Class action suits challenged both the failure of public schools to provide education to handicapped students and the overrepresentation of minority groups in special education. At the same time, the Willowbrook Wars and similar litigative battles contributed to a heightened national consciousness about the inhumane and nontherapeutic conditions of institutional warehouses for the mentally retarded and emotionally disturbed/mentally ill.

Dr. Aorist and her colleagues were intimately involved in the waves of change that eventuated in consent degrees, institutional reform, Section 504, and PL 94-142. While their mentors shaped the policies and masterminded the politics of the crusade for handicapped children, her generation directed its research, advocacy, and teacher preparation efforts toward reshaping education's notions about human potential, human rights, and appropriate service delivery. Many of them had testified in the class action suits against local and state education agencies and had participated in the November call-in campaign urging President Ford to sign The Education of All Handicapped Children Act.

The major problem of teacher preparation in special education was keeping up with the increasing demand for new special education teachers while at the same time modifying and redeveloping teacher training programs to reflect the emerging instructional technologies and emphases. The field's "best practices" had evolved dramatically from the generalized social adjustment orientation of ten years previously. Younger faculties, such as that at Hopewell State, had a vision of individualized instruction that was skill-oriented in terms of academic, vocational, and social development. They were committed to documenting program efficacy in terms of observable changes in child behavior. Stronger emphasis was being given to preparing teachers for the severely handicapped as well as for young handicapped children (ages 3 to 8). Concurrently, the career education initiative within general education was having its impact on special education, as evidenced by the creation in 1976 of the CEC Division on Career Development. The Council for Exceptional Children provided leadership for many of these emerging trends through its topical conferences on instructional technology (1970), special education delivery in sparsely populated areas (1971), developmental disabilities (1972), career education (1973) and the culturally diverse (1973).

In Dr. Aorist's department, these emerging changes already were being reflected in its program offerings. At the undergraduate credential and MA degree program levels, coursework had been developed in the areas of the severely handicapped, career education, early childhood education, and protecting human rights of the handicapped; at the doctoral level, seminars were addressing these same issues from policy, research, and program development perspectives. Throughout the Spring, Dr. Aorist and her colleagues had been discussing additional curricular changes needed to respond to the new federal mandates, such as the requirements for nonbiased assessment, due process, and the development of IEPs. They viewed only the specific processes and format of the IEP as new, not the basic concept itself. Their teacher preparation program already emphasized highly individualized assessment and individually tailored "errorless" learning programs for students, programs that would be delivered in a contingency-managed environment and that would result in pre-specified outcomes. They were now broadening their approach to include a more ecological orientation, with additional emphases on providing consultation and support to regular education teachers who integrated handicapped students into their classrooms.

The thoughtful, cohesive attention given these innovations was possible, in large part, due to federal grant monies. Their consolidated personnel preparation grant provided over $200,000 per year in faculty salaries, graduate student stipends, travel, consultants, and supplies and services in support of program development, implementation, and evaluation. The recent move away from categorical funding had permitted innovations that integrated the separate credential programs, providing for cross-categorical, competency-based preparation at the undergraduate, M.A., educational specialist, and doctoral degree levels. BEH monies funded faculty time for research and development and made possible off-campus retreats to examine departmental curricula and to conceptualize changes that would better integrate and articulate the categorical (LD, EMR, TMR, OH and BD) course offerings. The faculty had concluded that not only was coursework redundancy among the programs inefficient instructionally, it also contributed to teacher misconceptions that skills learned for one categorical credential could not be generalized to students served under a different category. Dr. Aorist and her colleagues collapsed categorical coursework where knowledge or skill overlap was considerable, but maintained separate categorical class sessions to address those instructional/curricular considerations more applicable to a particular group. They were not attempting to prepare special education "generalists" to meet the the multifaceted needs of all exceptional children and viewed as unduly alarmist warnings that unchecked, noncategorical training could lead to stagnation of the field and increase the vulnerability of exceptional children to the emerging cultural and social movements that devalued life in general and that of the handicapped in particular (Conner, 1976).

They were convinced that innovative, competency-based teacher education would play a paramount role in realizing the full promise of Pl 94-142. BEH looked to IHE's to provide leadership toward this end. Continuing dialogue was maintained between the federal officers and the field through BEH site visits to personnel preparation programs, regional meetings of project directors, the Leadership Training Institutes, and various other leadership advisory conferences. The professional leadership rotated through administrative roles in BEH, at the same time providing leadership to the Council for Exceptional Children and other professional organizations. Qualitative personnel training was viewed as the key to rectifying the inadequate and uneven distribution of services. Quantitatively, the demand also was high, for despite a ten-fold growth in the number of special education teacher preparation programs between 1958 and 1976, an estimated 50 percent of the task of preparing special education teachers was still ahead (Harvey, 1976).

As the 1975-1976 academic year came to a close, opportunities for teacher education programs in special education to impact on the quality and structure of service delivery for handicapped students appeared spectacular. Challenged by PL 94-142, teacher preparation programs were being called upon to provide, in large numbers, the most able, competent, and highly trained personnel that special education had ever known. Doctoral programs were flourishing, a sign of the strong widespread commitment to leadership preparation. The federal government promised assistance to universities in restructuring their training operations to meet new programmatic needs, to recruit students, and to work collaboratively with state and local education agencies. From federal policy pronouncements to personnel preparation efforts to educational delivery implementation the focus was on maximizing the individual potential of handicapped children and youth. As the nation began its countdown toward full implementation of PL 94-142, Dr. Aorist had every reason to conclude that these were indeed the best of times.

Special Education At Risk
1985-1986

Now a full professor at Sunbeam State University (having joined the great Sunbelt migration five years previously), Dr. Aorist-Xtant reflected on how the 1985-1986 academic year had served as a marker for the field of Special Education. It had been a time for looking back, of documenting the progress of the past decade, and of celebrating the 10-year birthday of PL 94-142. A time of reaffirmation and of self-congratulation about the changes that had been wrought, and of remembrances about roles played in bringing about these changes. Dr. Aorist-Xtant privately thought that she detected a hollow ring in much of this self-congratulatory activity, suggesting that her colleagues might be as uncertain and as concerned about the future of special education as was she. It seemed truly to be the best of times (as documented by ten years of progress in opportunities for the handicapped) and the worst of times (as evidenced by budgetary incursions and revisionist efforts that sought to reinterpret "appropriate" service delivery for handicapped students).

Certainly, if she reflected only on the changes that had occurred in availability of educational and related services to handicapped children over the past ten years, the approbation was well-deserved. During the frantic years following the passage of PL 94-142, school services had undergone rapid changes in terms of numbers of students served, the scope of services offered, and the form in which services were planned and delivered. For example, during the six years between the initial 1976-1977

Childfind and 1982-1983, the numbers of handicapped children served by special education had grown 16 percent despite a national decline in the overall size of the school-age population. There had been an increase of 119% in the numbers of students identified as learning disabled, of 23% in the numbers of preschool children served, and of more than 70% in the numbers of post-secondary-age students served. This growth contributed to a swelling demand for new special education teachers, resulting in an expansion of teacher preparation programs and faculties.

These dramatic increases lead to considerable controversy over the issue of appropriate identification of learning disabled and other mildly handicapped students. The apparent overidentification fueled the move toward mainstreaming and revisionist interpretations of "least restrictive environment." The extent to which these environments provided the most appropriate education sometimes seemed secondary to concerns over placing students in non-specialized, more cost effective environments. Blatt (1983) observed that "to discuss Public Law 94-142 as a 'blockbuster' today is to exhibit naivete about the current federal effort (and national mood) to erase much of its scope and impact" (p.18). Turnbull (1984) noted that the federal government was moving to extricate itself from the education and care of handicapped individuals, using such strategies as deregulation, lowering both authorizations and appropriations, canceling eligibility of the handicapped for social security benefits, reducing the federal labor force available to monitor compliance, refusing to enforce federal laws, and using "block grants" to encapsulate federal programs. He warned that these trends, coupled with decategorization and regular education mergers, signaled the potential demise of special classes for all mildly and some moderately handicapped children, potentially resulting in the "renaissance of second-class education for people seen by many to be worthy of only second-class citizenship" (p. 8).

Preservice preparation of regular educators to work with handicapped students had been richly funded by Dean's Grants for a period of years. With the demise of this special funding, the residual focus and quality of these efforts was unknown, although they undoubtedly had contributed to the widespread perception that little to no specialization was required for working with mildly handicapped students. Interpretations of PL 94-142 appeared to have shifted from an emphasis on providing optimal services that would maximize individual potential to providing only basic educational opportunities. Dr. Aorist-Xtant was unclear as to where the notion of a "cascade of services" now fit in her department's teacher training program: should it be included as a paradigm within the assessment/placement course, or only as a footnote in the historical overview portion of the curriculum? Many special educators were concerned that this shift, in combination with efforts toward merging regular education and special education, could result in fewer and less appropriate services for handicapped students. Those who had been professionally active in the early 1960s recalled how it was the failure to implement non-categorical entitlements and set asides, that lead to the Cary Commission Report and the establishment of the Bureau of Education of the Handicapped. They feared that without a separate funding category and a separate funding audit, special education services of the future would be neither adequately funded nor delivered.

Dr. Aorist-Xtant wondered if current developments were necessarily an inevitable swing of the pendulum, or if the decreasing sense of mission, zeal, and vigilance were a function of the "greying of the field." Special education seemed to be losing a sense of its own history. Those professionals who had masterminded the growth of special education were now retired or preparing for retirement, taking with them their commitment, creativity, and political skill. By virtue of timing and effort they had achieved almost instant status as senior leaders, structuring the development of the field, shaping public policy, providing leadership to their professional organizations, and preparing (in the handful of doctoral programs that existed) the next generation of leadership. This second generation, fully supported as graduate students, benefited the most from the field's lightning-fast growth. They moved easily into the new faculty and research roles afforded by the rapid development of teacher education programs at senior universities across the land. Early in their careers they obtained federal funding to develop much of the instructional technologies and empirical base of special education practice. Now in mid-career (and mid-life), Dr. Aorist and her colleagues were shifting much of their focus away from special education, moving into deanship roles, entrepreneurial enterprises, emerging fields (e.g., educational applications of technology), and personal development agendas.

The third generation of leadership, having come of age professionally in a field that was already established, had neither the choices and opportunities nor the vision and zealousness of the previous two generations. Receiving only partial support as doctoral students and completing their Ph.D.'s at somewhat older ages, they only rarely found tenure-track research and teaching positions available at major universities. Instead, they typically moved into middle management roles within local and state education agencies or accepted faculty positions at smaller, non-research-oriented IHEs. In one sense, the diminishing resources and declining growth in special education constituted a double-edged sword, limiting opportunities for innovation, expansion, and professional development, while at the same time more broadly distributing the pool of highly prepared leadership personnel.

Dr. Aorist-Xtant found that she was occasionally nostalgic for the former period of rapid growth and development. There now was less infusion of new faculty, and with declining enrollments and an average faculty age of 47.3, it was unlikely that there would be many new positions in the near future. The ambition, energy, and drive of new, young faculty was a sadly missing element in most teacher education programs. It was but one of many changes associated with a field characterized by declining demand. In contrast to the paramount concern for educational equity of a decade or two ago, contemporary concerns were directed toward "excellence in education" and educational reform. A general loss of public confidence in the schools had occurred, a loss of confidence that, despite the increased number of teacher education programs now reviewed and accredited by NCATE, extended to teacher education as well. Only weeks before the Secretary of Education had declared as unnecessary formal, university-based programs for teacher credentialing. It seemed to Dr. Aorist-Xtant an unfortunate time for NCATE to have moved to unit accreditation, diluting even further the quality of their review. Hopefully, the CEC Standards would be utilized to upgrade program review and accreditation within special education.

Although a remarkable empirical base had been developed in both special education and general education, the curriculum reform issues within teacher preparation focused little on psychological variables related to knowledge about teaching and learning. Instead, they addressed societal phenomena related to economic and demographic concerns, such as the shift from an industrial to an informational/technological age and the increased cultural and linguistic diversity of the nation. In special education, as in general education, the focus of educational change was primarily on the context of service delivery (e.g., number of instructional minutes, length of school year, community-based, mainstreamed and/or integrated settings). Instructional approaches for which an empirical base had emerged focused on individualization within small groups in contrast to the individually "prescriptive" approaches popular a decade or so earlier. Further, considerably greater attention was now paid to directly providing instruction for achieving targeted goals rather than on the now discounted process remediation approaches.

The increased numbers of specialization areas, each supported by separate journals, textbooks, professional organizations, topical conferences, and the like, made it difficult for Dr. Aorist-Xtant to keep up with the field. This situation was further aggravated by the range of works on related topics (e.g., futures forecasting, leadership skills, and national general education reform initiatives, issues, and trends) that she felt compelled to read. This information, combined with a tremendous increase in the amount of time she spent working directly with local, regional and state educational agencies, made it difficult for Dr. Aorist-Xtant to maintain currency in even a limited number of specializations.

One area in which she was floundering involved the applications of technology to special education, an increasingly important skill area in teacher preparation. A new CEC division (Technology and Media) had developed in response to this thrust and CEC was offering topical conferences and institutes on technological applications in special education. The Sunbeam State program had recently developed a specialized course in this area, one designed to cover a wide variety of technologies, including those that would prepare teachers to deal effectively with physically and sensorially impaired students "mainstreamed" into their programs. This generic course represented the department's first effort at incorporating training developed through a separately-funded personnel preparation project in microcomputer applications into all of its credentialing programs. In addition, the department was developing several elective courses in microcomputer applications and two faculty had recently applied for post-doctoral fellowships to extend their skills in this area.

Within its severely handicapped program, the focus had shifted to community-based instruction and transition into adult and vocational living environments. Whereas ten years ago the emphasis had been on younger SH children, the early childhood years were now covered under a special program funded by its own OSERS personnel preparation project. The vocational thrust of the SH program was strengthened by a special project in this area as well as by a related service project in career education that cut across both the SH and mildly handicapped programs. The department also had developed specialized programs (both OSERS funded) for preparing teachers of the severely emotionally disturbed as well as teachers to work with handicapped students from diverse ethnolinguistic backgrounds. As a part of the latter, the faculty was in the process of reviewing all course offerings for infusion of appropriate competencies relating to cultural pluralism and English as a second language. In addition to these efforts, the department had recently received a related services project to prepare parents and professionals across service agencies in collaboration skills.

While they sometimes bemoaned the amount of time they spent preparing project proposals for each of the separate competitions, the faculty at Sunbeam State found their word processors helpful in refocusing a single proposal to fit several competitions. Occasionally this paid off in that more than one of the versions of a given proposal would be funded. Overall they were pleased to be able to offer training in so many of the eleven federal priority areas for special education personnel preparation. They were somewhat concerned that content from one project was either applicable to or redundant of other departmental training projects, and attempted to find time (between writing and administering their separate projects) to explore ways to better interface their efforts. They recognized that the proliferation of federal priorities contributed to program fragmentation, in contrast to the program integration encouraged under the program assistance grants of the previous decade. However, they found that they had little opportunity to communicate these concerns, as OSERS civil servants seldom sought true dialogue with the field.

The Sunbeam State faculty were beginning to explore ways in which they could provide a more generically focused teacher preparation curriculum within the context of the separately funded programs. The trend toward more heterogeneous grouping of students, partly due to emerging interpretations of least restrictive environment, and partly due to the developing preference for neighborhood schooling (particularly in smaller and rural districts), meant that teachers required broad, generalizable preparation. More generic preparation also could serve as a mechanism for assisting special education teachers to adapt to the rapid and continuous changes taking place in instructional and service delivery approaches. Dr. Aorist-Xtant's department recently had conceptualized a set of consumer research competencies for all teacher trainees in an endeavor to prepare teachers who could maintain currency and legitimacy in the face of changing practices.

Achieving a balance between providing the necessary specialized skill training and cross-categorical generic preparation was a major challenge facing special education teacher education. The declining attractiveness of special education teaching--due both to personnel shortages in regular education and the increased class sizes and paperwork requirements of special education--too frequently meant that at the same time that they were expanding program content, special education faculties were decreasing both the entry criteria and length of the program required for student trainees.

The potential ramifications of such divergent pressures did not make Dr. Aorist-Xtant very optimistic about the future of special education services for handicapped students. A decade ago books such as The Futures of Children and Future Shock were directing attention toward the future implications of current practices and developments. By the mid-1980s, forecasting had become almost an obsession, with articles, books, journal issues, monographs and even special conferences and institutes directing attention toward the megatrends and waves of change that were shaping society. Within special education, the complexities and difficulties of the present made forecasting an uncertain and even precarious endeavor. The public policies formulated within the ensuing years would determine the extent to which special education services for the handicapped would flounder or flourish.

Through the Looking Glass*
Reflections on 1995-1996

On an unusually warm day in the early spring of 1986, Dr. Aorist-Xtant sat in her study trying to get started on the rather awesome task of conjecturing the future. So mired was she in the day-to-day concerns of the present, so dizzying were the possibilities of the future, that she was having a particularly difficult time. She was beginning to get very tired of sitting in front of the computer, so she was considering in her own mind (as well as she could, for the hot day made her feel very sleepy and stupid) whether the pleasure of completing the project would be worth the trouble of doing it. Quite unexpectedly, a small MacMouse suddenly scampered in front of her, saying "Oh dear! Oh dear! I shall be late for the future." Our heroine of course rose to the byte and followed close on his heels, finding herself, in due course, falling down what seemed to be a very deep hole. Landing with a thump, she jumped up and looked around at what was new and uncertain terrain.** A large sign at the beginning announced "You are now leaving the Present. Welcome to 1995-1996."

The sign was very clear, but little else was. A variety of mist-shrouded roads diverged into the future. Venturing down the one labeled Special Education Teacher Preparation, Dr. Aorist-Xtant was able to barely make out a series of roadsigns leading she knew not where. The signs pointed toward (1) the nature of schooling, (2) teacher roles, (3) personnel preparation, (4) specialist credentialing, and (5) program accreditation. Where did the roads lead? What would these places be like? Dr. Aorist-Xtant stood there in the middle of the road trying to presage the directions of the future.

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* For liberties taken, gratitude and apologies to Lewis Carroll
** Adapted from chapter one of Alice in Wonderland.

The Nature of Schooling

Standing at the crossroads of the future, Dr. Aorist-Xtant speculated on how the nature of schooling might evolve. Would disaffection with public education accelerate or would the reform efforts of the intervening decade lead to a resurgence of public confidence and support? Many of the reform efforts of the early and mid-1980s were more quantitative than qualitative in nature, lengthening the school day and academic years, increasing the number of "hard" subjects required for graduation, imposing standard curricula on teachers, and increasing the number of college entrance requirements. Not only did they fail to address the needs of poor, minority, nonacademic, and handicapped students (in other words, of the lower 40% or so of the school-age population), they were occurring at the same time as funding cutbacks for Title One, Head Start, bilingual education, migrant education, vocational education, and special education programs. In the future, would all educational monies be consolidated so that state and local educational agencies could decide which needs to meet? Would parents' groups lose the effectiveness demonstrated during the early years of defederalization (Meyen, 1983) and fragment into competing and ineffective special interest groups (e.g., parents of mildly handicapped secondary students competing against parents of young, preschool severely handicapped children for services)?

In the face of spiralling teacher shortages, would ways be found to recruit, train, employ, and retain sufficient numbers of qualified personnel? Or would the greater heterogeneity in students taught, expanded class sizes, relatively low pay, abbreviated and inadequate teacher preparation, limitations on professional growth opportunities, and the reconceptualization of teachers as technicians instead of as professionals, exacerbate the problems of public education? Failure to find solutions to these difficulties would, at the very least, accelerate the flight to private education, with public schools increasingly relegated to providing instruction to only the poor and nonacademic segment of the student population. At the very most, it would be the death knell of the great American experiment in public education.

Would attempts to address these difficulties lead to increased and more articulated programs for tracking students, facilitating the most capable and protecting the most handicapped, with a myriad of additional academic, vocational, and technical tracks available to those in between these two extremes? Or would appropriate uses of technology negate many of these concerns? Would the availability of individual microcomputers in the classroom, with a wide variety of exemplary software, buttressed by interactive video discs and other technological innovations, facilitate the ability of the schools to optimally address the learning needs, goals, and styles of each individual learner? Lance, commenting in 1977 on education for handicapped students, had noted that

> if a truly appropriate education is to be provided for each child, teachers must be supported by a technology that will permit them to deal with a vast range of individual differences. A teacher cannot wing it with a few textbooks and a ditto machine. (p. 94)

Appropriate applications of technology could greatly expand the ability of regular education to meet the specialized needs of some handicapped students. It would be possible for widely divergent students to engage in highly prescriptive individual and small-group instructional programs under the supervision of an accomplished professional, assisted by paraprofessionals and supported by skilled specialist consultants. On the other hand, budgetary constraints might result in administrative decisions that would make instructional technology available to some students and not to others. At the same time, widespread availability of computer and video technology in the homes could result in much of a child's formal education being delivered outside of the school, with differential availability widening the achievement gap between the middle-class and the poor. Potentially, alternative measures, such as public T.V., library collections, and public assistance programs, could reduce such disparities of opportunity.

By the year 1995-1996, technology could significantly compensate for handicaps and optimize individual achievement. Educational software of the 1980s already had permitted teachers to better measure academic performance, to maintain detailed records of student progress, to manipulate the rate of presentation and the difficulty level for each student, to shift readability level to match the skill level of students, and to increase the communicative production of students. It could be that by the mid-1990s, textbooks would be rare, replaced by electronic learning modules and interactive problem-solving activities delivered by voice-activated computers and typewriters (Kornbluh, 1982). New technologies could place the curriculum within the reach of students who were unable to read or write, or to see or hear. They might prove capable of inducing operant responses in even the most severely handicapped. At the other end of the special education spectrum, artificial intelligence might compensate for the specific difficulties of students previously labeled as "learning disabled" or "EMR". The promise of mainstreaming might be fulfilled as regular classroom teachers, with consultative assistance from technical and learning specialists, were enabled to provide meaningful instruction to handicapped students in integrated environments.

Teacher Roles

As a teacher educator, Dr. Aorist-Xtant was intrigued about what these unknowable futures heralded for the teacher role. Teachers necessarily would become highly skilled and technologically competent educational planners and instructional managers. They would assess student needs, evaluate and select programmed learning modules, and monitor the computer-stored student data. They probably would be responsible not so much for direct instruction in basic skill areas as for ensuring that this instruction was provided by appropriate electronic learning programs. They likely would have greater responsibility for teaching future-oriented thinking strategies designed to enable students to adapt to coming changes.

Perhaps there would be greater differentiation of teacher roles, not so much in terms of ability levels or even subject areas, but in terms of the level of instructional responsibility. There might be *teacher technicians* responsible for the daily management of the learning laboratories, monitoring and trouble-shooting technologically-delivered instruction. Generically prepared in pedagogy and technology, they would have the most direct contact with students, acting chiefly as managers of individual instruction. *Subject matter leaders* might work with small groups of students, leading seminar discussions about electronically-delivered subject matter; *personal development coaches* might similarly work with small groups of students to facilitate socialization through discussions about interpersonal difficulties or problems in dealing with change. *Curriculum specialists* might be responsible for keeping abreast of program options in designated areas and recommending changes in the use and sequencing of software programs.

Enhanced capabilities for pinpointing and adjusting to individual differences could create new roles for *special education learning specialists.* These experts might be responsible for maintaining currency in the development of technological adaptations for students with physical, sensory, cognitive, or behavioral handicaps. They could serve as program consultants or team leaders for students designated for special intervention options, working with parents, representatives of related service agencies, and the other educational personnel to provide appropriately articulated curricular and instructional experiences. Hopefully, interactive telecommunication systems would be utilized to minimize the difficulties in scheduling these cross-disciplinary team meetings. This same sophisticated communications technology could permit almost instant consultation with data bases, innovators, and researchers located anywhere in the world.

On the other hand, the availability of computerized curricula might lead to greater standardization of educational programs, not to greater individualization. It might become possible to deliver quite efficiently curricula that was neither effective nor appropriate. Policy makers might interpret the availability of computerized learning packages as further support for defining the teacher role as that of technician. A single standard curriculum with an undifferentiated instructional approach might be mandated for all students. Equality of educational opportunity might be interpreted as equality of access to a standard program. Or, in the name of excellence, the schools might divide students into tracks, one composed of capable students for whom academic instruction would be provided, with the other composed of nonacademic students with whom the schools would play primarily a "holding" or occupational preparation function. A possible third group of children, so divergent as to be considered "surplus", might be warehoused in separate, noneducational facilities or camps. Blatt (1983) suggested that such places might be "attractive" in that they would segregate the nonproductive, would stimulate the creation of a major service industry as well as several contiguous industries (e.g., construction, manufacturing, food services, etc.), and would protect families against the catastrophic responsibilities of caring for defective children. It was, of course, also possible that the content and structure of education in the mid-1990s might be largely indistinguishable from that of the 1980s. Underfunding, inattention, inertia, habit, territorial rigidity, unionization of teachers, and luck might combine to keep it basically untouched by change--which would be neither the best nor the worst of times.

Personnel Preparation

Standing at the crossroads, it was clear to Dr. Aorist-Xtant that teacher education programs could play a significant leadership role in ensuring that a favorable scenario unfolded. Within both general and special education, this would require significant changes if teachers were to be prepared as technologically skillful, individually flexible, educationally responsive and futures-oriented professionals. Teachers, as well as teacher educators, would need to engage in intensive life-long learning or retooling efforts to remain on top of the waves of change. The pivotal nature of educational decisions on individual students would highlight the importance of a teacher preparation program characterized by a solid grounding in the liberal arts and humanities, a broad generic base of professional preparation, and multiple options for intensive, specialized technical training at an advanced level.

Teacher preparation programs probably would reflect the multiplicity of roles for which educators would be credentialed. All teachers would be competent in generic skills of technological pedagogy, with additional specialization skills targeted for specific roles. As services for handicapped students by then would be mandated from birth through age 25, with options available for life-long access to the educational system, the range of special education specializations might increase.

Special education teacher preparation could include specializations in curricula planning, instructional alternatives, infant intervention, personal and vocational development, vocational re-entry, and others. Endorsements to special education specialist credentials could be available in each of these areas, with advanced specializations designating expertise in adapting software and prosthetic devices as well as in liaison with the community and home environments. Teacher preparation might reflect a service delivery system that merged the programs for" mildly handicapped" with other efforts (e.g., remedial reading, upward bound, Title I) to address the needs of nonacademic students, with a new credentialing specialization in the "mildly non-handicapped." The proliferation of roles undoubtedly would be reflected in OSERS personnel preparation priorities, of which there could be 30 or 40 by 1996, several of which would be educational in scope.

The cross-disciplinary focus of the 1980s could have expanded and become more formalized, a trend that would be particularly apparent at the vocational transition and early childhood stages. The increase in numbers of extremely fragile and severely handicapped children might lead to a reinterpretation of the meaning of "education." The public might choose to exclude from education those unable to make observable responses, with responsibility for this expanding group being assumed by the medical or social services fields. Or, a new interdisciplinary specialization area could emerge to prepare teachers and advocates for this group. Perhaps a new CEC division would develop in behalf of non-responsive infants and children.

The gravity of decisions about the deployment of fiscal, technical, and medical resources in the 1990s could mean that personnel preparation programs would devote considerable attention to philosophical and ethical issues. These would include the issues that transcended technology, that challenge individuals to reexamine their basic values and beliefs, and that confront the fundamental issues of the meaning of human worth and dignity (Cegelka & Lewis, 1983).

Personnel preparation programs of the future should exemplify the technological applications expected of future teachers. These competencies could be infused into all coursework (e.g., characteristics, IEP development, assessment, instruction, behavior management, working with parents, etc.) as well as into the practica and internship experiences. Field experiences could be monitored and evaluated, at least in part, through two-way computer-input systems which would permit detailed daily feedback, with prioritized multiple recommendations provided to individual trainees. Computer access could greatly broaden the range of training programs, seminars, and options available to a trainee at a given institution. This could facilitate the training of teachers for remote areas as well as for low-incidence populations, at the same time equalizing the quality of personnel preparation available.

Doctoral programs in special education leadership preparation could well be flourishing by the mid-1990s due to demands created by general population growth and the increasing survival rate of medically fragile/severely handicapped children and youth. Demands for retraining in order to maintain currency in a rapidly changing society could contribute to the creation of additional teacher education positions at both IHEs and in state and local education agencies. This might well occur at the very time that many of the second-generation leadership were beginning to look to early retirements, further amplifying a need for new leadership personnel. At the same time, the complexity of the problems exhibited within the special education population along with the promises of developing technology might lead to a resurgence of federal support for research efforts, creating a new demand for highly qualified special education researchers.

Program Accreditation

As Dr. Aorist-Xtant contemplated the last remaining roadsign, she wondered about the future landscape of program accreditation for teacher education. Would 1995 be the year that a twenty-campus California State University System would apply to NCATE for unit accreditation? Or would the proliferation of new specializations, coupled with continuing pressures for quality, have returned teacher education to accreditation of individual programs within colleges of education? Would teachers' unions be key players in determining the scope and delivery of teacher preparation? Would there be mandated national accreditation, reflecting a national teacher preparation curriculum? Would pre-service accreditation continue to be linked to university-based programs, or would a variety of public and private vendors compete for licensing as teacher preparation programs? Would formal partnerships for teacher preparation have developed among IHEs, local school districts, and state education agencies? Or would the federal leadership, responding to teacher shortages within the context of their own unique perceptions, have guided education into defining teachers as career-ladder technicians, requiring apprenticeship training with no formal pre-service preparation? The future of program accreditation was inextricably linked to the future of other phenomena impinging on special education. Evolutions occurring within other regions of education would directly shape this particular landscape.

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The far-ranging and potentially contradictory possibilities of the future were making Dr. Aorist-Xtant quite dizzy. The future seemed both unknown and unknowable. For every future possible, another, quite different future could evolve. Slumped over her microcomputer with her face on the keyboard, Dr. Aorist-Xtant was attempting to differentiate visions from nightmares from dreams when the same small MacMouse once again darted into view. Hailing him, she asked, "Would you tell me, please, which way I ought to go from here?" "That depends a good deal on where you want to get to," said the MacMouse. "You are sure to get somewhere, if you only walk long enough."*

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* Adapted from chapter six of Alice in Wonderland.

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Special Education in Canada
Past, Present and Future

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SPECIAL EDUCATION IN CANADA PAST, PRESENT AND FUTURE

My intention, in this paper, is to present you with a sketch of special education in Canada; to offer the experience, in a particular area, of my own Province -- Ontario -- as a case study; and to indicate what must be done over the next few years if exceptional children in Canada are to receive the education they require.

SPECIAL EDUCATION IN CANADA

Education in Canada is a Provincial responsibility. The 1867 British North America Act gave the Provinces of Canada exclusive jurisdiction over this domain, and each of the ten Provinces has, accordingly, developed its own legislation, policies, and procedures in special education as in other areas of education. Over the years more and more sharing of ideas and experience has occurred through organizations such as The Council for Exceptional Children and the Canadian Council of Ministers of Education. There are more commonalities among the Provinces in special education than ever before. Nevertheless, differences exist, and these give a special flavor to special education in each Province.

As a general rule, the philosophy of special education in Canada is considerably more enlightened than the legislative framework upon which it rests. This is because special education is a policy add-on to the body of legislation that exists for each school system as a whole. This in turn leads to a curious ambivalence in the language of policy. For example, British Columbia (B.C.), which has developed the most comprehensive policies, procedures, and guidelines for special education of all the Provinces, requires that special programs must be developed for students with special needs who cannot benefit from placement in regular classrooms. Although it would be logical to expect that such programs must be in the least restrictive environment appropriate to the child's needs, B.C.'s policy manual states only that this should be the case. Programs are established not only according to the needs of the child but also according to available resources.

British Columbia

Similarly, B.C. s School Act, now under major revision, takes some of the steam out of the aspirations of special educators in that Province. School age is defined in the Act as over the age of 7 years and under the age of 15 years even if the actual special education provision operationally exceeds this range.

Like most other Provinces, B.C.'s special education provision is based on a variant of the cascade model of service delivery to exceptional children. Policy in the funding area, as in the rest of Canada, is still to identify funding "in a categorical manner in order to secure the necessary resources." In other words, B.C. and the other Provinces still find it necessary to have visible special education funding to ensure that the needs of exceptional children are addressed. B.C. is unique among the Provinces, however, in specifically articulating both a philosophy of special education and the goals and objectives for its Special Education Division. Although all the Provinces have by now developed and published goals of education for their school systems, only B.C. developed and enshrined in policy, however 'soft' in certain areas, a comprehensive set of beliefs and objectives for special education.

These objectives embody collaborative approach to special education, typifying the way Canada as a whole approaches special education.

School boards or districts deliver service and Provincial Ministries of Education seek to assist them in providing all necessary special programs and services. B.C. is, however, in a transitional stage, seeking to go beyond this collegial, cooperative approach to "review, monitor, and evaluate educational programs and services for exceptional children, and to ensure accountability to established standards, guidelines, and levels of resource allocations." Its major effort in this domain is its attempt to develop, at the Provincial level, evaluation criteria for special education programs and services. No other ministry or department of education has yet sought to address this problem in the systematic, prescriptive manner planned in B.C.

This venture will presumably have implications for planning. At the present time, planning in special education in B.C. is expected but not legislatively mandated. The Special Education Division only encourages school districts to develop comprehensive plans for special programs and services, although "the endorsement of these plans by parents, teachers, administrators, and trustees is seen as critical to the success of program initiatives."

Organizationally, it is notable that special education at the Provincial level in B.C. does have the status of a Division, with an Executive Director of Special Education overseeing the activities of five separate branches each with its own Director. The Division was established "to give the education of exceptional children a very clear and identifiable focus." No other Province gives divisional status to special education. One, or at the most two branches represent the norm.

Funding for special programs in B.C. is provided through a Financial Management System (FMS) based on provincially established definitions of educational activity designed to generate consistent funding for these activities in all school districts. Every district receives between 60% and 95% of the funds required for its approved budget through taxes collected by the Province. The amount depends on the district's ability to raise school taxes.

In order to receive these funds, school districts are required to operate their special education programs in accordance with the policies, procedures, and guidelines in the manual. Program monitoring and auditing by the Province are features of the system, but its new evaluation criteria project strongly suggests inadequacy in this area. In addition, each district is required to submit annually (by June 30) a Special Programs Status Report on programs operated and funded in accordance with Ministry guidelines. Districts are required to provide information on the results of the special programs and services delivered by the district. Major areas of Ministry interest and concern are program evaluation and student assessment.

B.C. provides program guidelines for special education in each of the following categories:

- Moderately Mentally Handicapped (TMH)
- Severely and Profoundly Mentally Handicapped
- Physically Handicapped
- Visual Impairment
- Hearing Impairment
- Autistic
- Severe Learning Disabilities
- Mildly Mentally Handicapped (EMH)
- Severe Behavior Problems
- Rehabilitation
- English-as-a-Second Language/Dialect
- Indian Education
- Gifted Education
- Hospital
- Homebound

These categories, with the exception of English-as-a-Second Language and Indian Education, are representative of those in the other Provinces. In B.C., however, the definitions in each category are generally more detailed than elsewhere, and guidelines for identification and placement are provided. The appropriate program and service delivery approach are indicated; evaluation methods are suggested; and program personnel, resources, facilities, and available consultation services are identified for each category. This constitutes the most comprehensive attempt in Canada to provide direction to school districts in the various categories of special education.

The approach extends to special services, including special health services (speech pathology and other programs). Detailed direction is also provided in the generic areas of assessment, programming, in-service, school-based administration, learning assistance (mild learning problems) and severe handicaps. In addition, a number of circulars have been issued to the field to indicate or clarify policy in various special education areas.

Alberta

Education in Alberta is governed by The School Act. Little reference is made to exceptional students or to special education in the Act. School age is 6 to 16 years, although pupils have the right to attend school until they are 18. Attendance beyond the age of 18 is at the discretion of the individual school board. Boards are required to provide special education "in a special class or by entering the child in a special school or in any other suitable manner." Unlike in B.C., which has thus far resisted this type of provision, a board or a parent may place an exceptional pupil in a private school and receive Provincial funding for the placement. For the past several years, however, this funding has been pegged at the 1983 rates which suggests a certain lack of enthusiasm in Alberta for funding exceptional pupils to attend special private schools.

Special Education in Alberta is called, at the Provincial level, the Special Needs Program, and it consists of two services -- Early Childhood Services (ECS) and Special Education. ECS is a voluntary program directed at the integration of educational, health, recreational, and social services for children younger than school age. Children with special needs are eligible for the program up to three years prior to school entrance. All other children are eligible for it one year prior to starting school. Operators of ECS programs may be school boards of nonprofit, community-based societies. The Ministry of Education regional offices of education monitor the programs as required.

Important though this program can be in the lives of exceptional children it is not mandated. Again, this ambivalence towards mandatory special education, so characteristic of Canada's school system is expressed in Alberta's Program Policy Manual, which states that "through special funding from Alberta Education, school boards (are) encouraged to establish special education programs." According to the provision of The School Act cited previously, this is something that school boards must, in fact, do.

Alberta is committed to the cascade model: individualization, community focus for special education, parent involvement, developmental focus, integrative curriculum, and a diagnostic teaching approach. This approach identifies skills, or the lack of them, on the basis of observable, measurable behaviors, rather than in terms of inferred cognitive, perceptual, or affective states or processes. This pragmatic approach is designed to lead to real-time, on-line prescription and evaluation and to avoid speculative practices.

Special purpose grants (e.g., Learning Disabilities Fund) were a feature of Alberta education until quite recently. However, the funding trend is away from special purpose grants and toward block funding. Where special purpose funding continues, e.g., for parent placements, it has been reduced.

Saskatchewan

Saskatchewan's Education Act defines a "handicapped pupil" as a pupil who is unable to participate at an optimal level in the benefits of the ordinary program of the school by reasons of personal limitations attributable to sensory defects, mental retardation, communications disorders, neurological, orthopedic or physical impairment, or behavioral disorders.

A board of education must provide educational services for handicapped pupils, but the board may, "where it is considered advisable, exclude from attendance in a specific curricular program any pupil who, in the opinion of the director or superintendent, is incapable of responding to instruction in that program, or whose presence is detrimental to the education and welfare of other pupils in attendance in that program." However, the board must ensure that alternative educational services are provided for such excluded pupils.

Where a pupil is so seriously handicapped as to be unable to benefit from any of the instructional services provided by the board, consultation with parents must occur, and the board must make available any of its consultant services that may be of assistance and arrange other services appropriate to the pupil's needs and circumstances. These may include the pupil's school, other facilities operated by the board, or services operated by another board of education, agency, institution, or person. Where provision is made in a special institution in Saskatchewan or out-of-province, departmental approval is required, and the board is responsible for payment of all or a portion of the cost of maintenance, tuition, transportation, and support of the pupil as prescribed in the regulations. Responsibility for the pupil remains with the board in which his or her parents reside.

In Saskatchewan, every person between the ages of 6 and 21 has the right to attend school "and to receive instruction appropriate to his age and level of educational achievement." Where a pupil is deemed to have special needs, the appropriate board of education official (Director, Superintendent, or Supervisory Officer) is the key player in the pupil's future, since the Education Act requires this official, upon referral from the school principal, to conduct "such study and evaluation as the circumstances warrant." Parent access to this process is through the school principal, who is not obligated to make a referral at the request of a parent, but who may "determine the nature of the action to be taken on such request."

Where the referral has been made, the board official responsible must direct such studies, evaluation, and diagnostic procedures as may be appropriate. The official must also confer with the principal, teacher, parent, or pupil, "or any of them concerning the results of the investigations and the recommendations for changes in the pupil's educational program."

Special provisions are available for gifted pupils at the discretion of the board of education. Mandatory provision for exceptional pupils is confined to those considered to be handicapped.

The Education Act prescribes a process for mediating conflict and dispute involving a pupil, but appeal procedures respecting "designation" or placement of a handicapped pupil are set out in the special education regulations.

In the regulations under the Education Act, definitions of handicapped pupils are set out. Saskatchewan is unique among the provinces in adopting a highly prescriptive, psychometric approach towards definition. Saskatchewan is thus more closely aligned with certain American models than any other Canadian jurisdiction.

Handicapped pupils are subdivided into "high-cost handicapped pupils" and "low-cost handicapped pupils." The latter means pupils with mild to moderate handicapping conditions who require appropriate special education services but who do not meet the criteria for designation as high-cost handicapped pupils. These criteria are sufficiently different from Canadian practice elsewhere to give an example here:

> Severely Learning Disabled: When assessment by qualified personnel affirms that the child is (1) between the ages of 5 years 8 months and 16 years 0 months, (2) has an intelligence quotient of 85 or higher, as measured by an approved test; (3) that there is significant discrepancy, one standard deviation or greater, between aptitude and achievement, and (4) the average rate of progress in the skill subjects, including reading, is not greater than half that of average students as measured by approved achievement tests.

Instructions on how to implement this definition occupy almost three pages of Saskatchewan's policy manual.

Manitoba

The legislative basis for the provision of special education programs and services in Manitoba is constituted mainly in three short sections of The Public Schools Act, 1980. The Manitoba Department of Education interprets these sections as mandating the provision of special educational programming for school divisions and districts. However, since Manitoba's Public Schools Act has not been proclaimed, this province cannot be listed as one operating under mandatory legislation.

In Manitoba, as in Saskatchewan, exceptional pupils are classified into two basic categories, high incidence support and low incidence support. High incidence means a program of support for the provision of resource teachers, occupational entrance teachers, special class teachers, teachers of the gifted, and teacher aides (and related costs). The amount of this special education support is allocated in units of $20,000, the number of units being based on pupil enrollment (i.e., 150 - 300 = 1 unit, 301 - 450 = 2 units, 451 - 750 = 3 units, and so on, according to a scale set out in the regulation).

Low incidence support is subdivided into Low Incidence I Pupils: those who are "trainable mentally handicapped, moderately multi-handicapped, severely physically handicapped, severely learning impaired, severely visually impaired, very severely learning disabled or very severely emotionally disturbed" - and Low Incidence II Pupils: those who are "severely multi-handicapped, severely psychotic or autistic, or profoundly deaf." Where a division provides special assistance for these pupils, the province provides $3,300 for each Low Incidence I Pupil and $6,600 for each Low Incidence II Pupil. The regulation further states that "the decision of the Minister or his designate as to the classification of a pupil as either a Low Incidence I Pupil or Low Incidence II Pupil is final....".

Manitoba's special education policy is articulated as follows:

> Since each child in the Province has the right to develop to the fullest extent possible as a confident and valued member of our society, there is a responsibility for the provincial government and those who provide educational services in the public school system to ensure that the child with special needs has an equal opportunity to receive a meaningful and appropriate program.
>
> For a large proportion of children with special needs this goal is best accomplished by placement within the regular program stream. Social interaction with other students in a normal environment is considered to be a vital part of the educational curriculum. In order to enable this to occur, additional supports are required, and provided, to enable children with special needs to benefit fully from their experiences in the regular classroom. A small proportion of the population has exceptional needs which are so significant that a higher level of resources is necessary because of the extensive nature of the program modifications required.

Manitoba funds small special class groupings for these students but cautions that they should not become locked into "the entire scope of the timetable" in such special settings. Similarly, the identification of students' learning "conditions" should not become a negative process. "The handicapping conditions listed in the regulations of the Public Schools Act are intended to serve as examples of the severe disabilities experienced by children who require considerable modifications or supports to their program. It is not necessary to attach such labels to individual students for funding purposes. It is essential to determine the level of need presented by the student and to plan and implement the program modification which will meet that need." Further, it is Manitoba policy that where the child is placed - in a specialized setting or a regular classroom - is not a criterion for determining eligibility for low-incidence funding.

The Manitoba government places "great emphasis" on the continued development of a comprehensive service delivery system to meet the needs of children with special needs. Parent and community involvement in this process is considered essential.

Quebec

Quebec's education legislation entitles every individual of school age to free public education and to "benefit from a system of education that fosters the full development of his personality." Exceptional pupils are not, however, specifically identified in Quebec's education laws.

In Quebec, appropriate measures of aid for children with difficulties must be established. For these children the Department of Education fosters access to a public education system that provides quality education in as normal a setting as possible. It is departmental policy that children with severe adjustment or learning difficulties should find in the public school system the appropriate educational, remedial, and rehabilitative services. However, those who are unable to benefit from the services available in the school system may be provided for by the Ministere des Affaires Sociales. Close collaboration exists between Education and Affaires Socials; school boards are responsible for directing a child with difficulties to the appropriate service.

Although Quebec seeks to ensure that exceptional pupils are appropriately served, many policy areas (e.g., identification and assessment) are still in the process of development.

New Brunswick

New Brunswick's Auxiliary Classes Act permits, but does not require the establishment of auxiliary classes to provide courses of instruction and training for the mental and physical development of children who are, from any physical or mental cause, unable to take proper advantage of the public school courses provided for under the Schools Act. New Brunswick has also entered into an agreement, under the Education of the Aurally or

Visually Handicapped Act, with the other Atlantic provinces for the establishment of the Atlantic Provinces Special Education Authority and resource centers, providing for educational programs and services for handicapped persons in those provinces.

Basically, New Brunswick's legislation provides for the "visible handicaps" (mental retardation, physical handicap, and visual and auditory impairment) and for children with mental health problems. This is reflected in the admission criteria for auxiliary classes. The Auxiliary Classes Act states that "no child shall receive instruction or training under this Act unless such instruction or training is recommended for the child (1) by the director of a mental health clinic in New Brunswick, or (2) by a medical practitioner who is employed on a full-time basis in the public service of the Province and designated for the purpose by the Minister of Health." The Regulations further specify that "no person shall be a member of an auxiliary class until: (1) a qualified medical practitioner has examined him and submitted a report of the examination to a Director: (2) qualified personnel at a Mental Health Clinic have assessed him and made a report to the Director: (3) the Director has recommended to the Director of Mental Health Services that he receive instruction or training under the Act and: (4) the Minister has submitted to the society the name of the person as one recommended for membership in an auxiliary class."

In 1974, a White Paper entitled Opportunities for the Handicapped was issued. The special education component of the paper stated that provision in New Brunswick should be made for all handicapped children in need of educational programs and service, regardless of the handicapping condition or the geographical location of the pupil's residence. However, New Brunswick's legislation indicates a considerably more restricted approach than this global mission statement.

Nova Scotia

In Nova Scotia every person over 5 and under 21 has the right to attend school. The Regulations require each school board to "provide for all pupils resident in the municipality, city or town who are qualified to pursue the studies in the grades or courses for which they are enrolled," including "instruction for physically or mentally handicapped children." Nova Scotia's legislation therefore gives the individual school boards responsibility to provide programs for children with "visible" handicaps. However, children who are severely learning disabled (as well as those with severe visual and hearing handicaps) may be provided for by the Atlantic Provinces Special Education Authority.

Under the Regulations, a child may be excluded from school if, among other reasons:

> The physical condition of the child is such as to render his attendance at, or instruction in, school inexpedient or impractical;...
> The mental condition of the child is such as to render his attendance at, or instruction in, school inexpedient or impractical.

The Handicapped Persons Education Act provides that the parent or guardian of every person considered to be a (visibly) handicapped person shall notify the superintendent of schools serving the area in which the person resides of the name, address, and age of such handicapped person. The superintendent of schools is then required to immediately arrange for an educational assessment of the handicapped person.

Special education policy in Nova Scotia is that school boards are to provide programs for children in need of special education. Special education in Nova Scotia schools consists of educational programs and/or services designed to meet the particular needs of children and youth who differ from the norm in any school system to such an extent that they require additional and/or different school methodology, curriculum, and/or services in order to develop to their maximum.

Placement in a class designated as special should take place only after a case conference has been held with appropriate personnel and every alternative means of programming has been discussed. Every two years, or more frequently if required, it is policy that the students concerned should be formally reassessed. Whenever it appears advantageous to the pupil, he or she should be referred to the regular program totally or in part. It is also policy that every child referred for special education in Nova Scotia should have an appropriate diagnostic assessment by a qualified examiner. The individual assessment should include a standard measure of general intelligence, diagnostic educational measurements, and measurements of perception and motor functioning, the last two depending on the child's needs. In its policy statement on special education, Nova Scotia considers it desirable for children to be tested for any hearing or vision defects which could depress the results of any aspects of the educational assessment or inhibit the child's educational development. In addition, any medical problems or conditions should be made known to the school authorities.

Prince Edward Island

At the present time, Prince Edward Island (P.E.I.) has no written legislation concerning special education. P.E.I.'s legislation simply states that the education system is responsible for the "education of all children from 6 to 21 years of age who have not completed high school."

No policy statement currently exists on special education, although steps are being taken to develop one.

Newfoundland

Newfoundland's Schools Act requires every school board to organize the means of instructing children who for any physical or mental cause require special classes, either by the establishment of special classes in its schools or by making arrangements with another school board or within any educational body or authority within Canada for the education of such children; i.e., the legislation provides for those students with "visible" handicaps.

Newfoundland's legislation, per se, is similar in most respects to the other three Atlantic provinces. However, the Schools Act has a special provision for "extra-perceptual" (blind and deaf) children. It empowers the Minister to permit, in writing, admission to a specified school of children younger than 6 years if it is shown to his satisfaction that sufficient extra-perceptual children will attend to warrant such permission being given.

Moreover, in 1982, in a notable development, Newfoundland changed its regulations to allocate salary units "for pupils who, in the opinion of the Minister, are unable to benefit properly from normal classroom instruction." This is an all-inclusive provision, embracing every category of special needs students.

In the policy area, Newfoundland's Department of ¯ducation is in the process of formulating a handbook of policy statements.

Ontario: A Case Study

Ontario has the most comprehensive special education legislation in Canada. The Education Amendment Act, 1980 (Bill 82) requires that the Minister of Education "shall ensure that all exceptional children in Ontario have available to them.....appropriate special education programs and special education services without payment of fees.....and provide for the parents or guardians to appeal the appropriateness of the special education placement." For these purposes, the Minister shall "require school boards to implement procedures for early and ongoing identification of the learning abilities and needs of pupils, and shall prescribe standards in accordance with which such procedures be implemented; and, in respect of special education programs and services, define exceptionalities of pupils, and prescribe classes, groups or categories of exceptional pupils, and require boards to employ such definitions or use such prescriptions....."

Special education in Ontario has a long and eventful history, from its beginnings with the establishment of the Toronto School for the Deaf in 1858 to the great era of expansion of special education programs from 1950 onwards. However, Bill 82 is arguably the most significant event that has occurred in special education in Ontario because, for the first time, the rights of exceptional students were enshrined in legislation. It is not surprising that in Ontario, as in other jurisdictions which have mandated special education, considerable controversy swirled around the bill; on at least one occasion the government of the day seriously considered "pulling" it. It eventually passed, with all-party support in the Legislature of Ontario, in a form that was generally acceptable to the education system and its clients, although that acceptance ranged from enthusiastic support to grudging acknowledgment of the inevitability of some such measure.

It is instructive to examine the dynamics of this situation and to identify the factors that resulted in consensus, no matter how fragile that consensus may have been.

First, Bill 82 came about as a result of intensive advocacy on the part of parent groups. Professional organizations like C.E.C. played a role, but a less vocal one. Societal changes occurring in the 1960's which led to Public Law 94-142 in the U. S. were somewhat muted in Ontario. What happened in the United States happened in Ontario, but in a more moderate form. In Ontario, more moderate means more appropriate. In Ontario in the latter part of the 1970's, people were talking about avoiding the "excesses" of P.L. 94-142. They meant avoiding excessive regulation and the accompanying avalanche of paperwork.

However, some parent groups lobbied ceaselessly and nearly succeeded in getting a P.L. 94-142 look-alike bill. When Bill 82 received a second reading it actually contained large chunks taken verbatim from the American legislation. The final product represented a compromise between the gentle nudge the Minister had in mind and the hard shove some of the advocacy groups demanded.

It was, appropriately, a learning experience. Fortunately, we got some good advice from some excellent planners at the Ontario Institute for Studies in Education who suggested that change has to be prepared for; it cannot simply be legislated. So we arranged for a phase-in of our legislation over a five-year period, on the basis of a centrally orchestrated planning process.

If we have not gone as far and as fast as some of us would have liked, I hate to think where we would be now without the board planning process we instituted. True, its limitations are everywhere evident. It focused on the easy factors-physical facilities, staffing, professional development plans, statistics, and the like, leaving programming largely subject to local whim and circumstance. In other words, it was a quantitative rather than a qualitative approach, administrative rather than clinical.

It did provide the organizational infrastructure that will now permit us to focus on the program quality issue. This is not to suggest that program quality is uniformly poor. We know that there are many effective special education programs in our school system. We just don't have a systematic means of ensuring program quality; this means that, in certain situations, programs of doubtful quality may continue.

In a school system of 1,800,000 students, with over 250,000 receiving some form of special help, and 130,000 specifically identified as exceptional pupils, the smallest margin of program inefficiency affects the lives of a great many. Apart from this "clinical" issue there is always the dollar question. Ontario puts at least as much money as any other jurisdiction into special education in terms of funding, and we really don't know how big a bang we're getting for our buck. We can no longer say that, if everything appears calm out there, there's no problem and everything must be going along just fine; we know that is not the case. For every parent who complains and kicks up a fuss there are ten or a hundred who are not satisfied but don't complain, for a variety of reasons. Client satisfaction is a poor measure of effectiveness because parents, in Ontario at least, do not interact with their school system in the same way they interact with their supermarket manager or their newspaper carrier.

There needs to be central direction again in Ontario, but in the program quality domain. The nature of this central direction is of critical importance, and I shall address it in some detail later.

As my comments will suggest, another lesson that we learned from Bill 82 is that the education system does not typically reform or improve itself. Systems evolve routines, and routines are established ways of doing things - that is, with a minimum of thought. We should not come down too hard on this because organizational stability is essential if we are to get anything done collectively. However, the stability we should be after is of a particular type, not rigid and unyielding, but characterized by a sound organizational infrastructure. Such an infrastructure, by establishing appropriate procedures for such areas as communication, should render them automatic so that the real job of the schools can go on. Unfortunately, without central direction, this type of infrastructure will never develop uniformly. It is human nature to avoid the tough problem (program quality) and to devote disproportionate attention to the easy one (the paperwork, the number of paper clips required for the coming fiscal year, the number of angels that can dance on the head of a pin). It is then even easier to complain that you can't do your real job because you're swamped with paperwork and all the other stuff.

So, if anything is to be done to take Ontario where it can and should go, it has to come from the center. If this really is the age of the technocrat, we in education have to exercise our technical skills. We have to say in Ontario "Bill 82 is dead, long live Bill 82." The old style politics of special education reform must become as dead as the proverbial doornail, and we must preside over its demise by making it unnecessary. This requires planning, especially the kind of planning that nails avoidance techniques and excuses by keeping things as simple as possible. I don't mean simple-minded, because special education has its complexities. But these complexities are not difficulties of the order of quantum physics. They are to do with children, and with all our advanced degrees, surely we know by now what we can do, and what we should do, for them. Our greatest obstacle, in my view, is the "games people play"-the territorial disputes, the paper chase, and all the other manifold avoidance techniques, I believe these can be skewered by sweet reason. That reason, however, has to come from the top.

At this point I should probably deal with the resources issue because this was one of the two issues (the other was litigation) that obsessed education officials in Ontario when Bill 82 was in development. Perhaps Ontario is unique in this, but during the 1970's there was more Provincial money available for special education than was being spent. Some of the boards who were loudly voicing concerns about costs were the very boards who were not using the maximum amounts of Provincial grants available to them. In Ontario these were and are not percentage or partial grants, but grants to cover 100% of the cost of providing special education programs and services. Bill 82, as it turned out, forced boards to use these grants. In other words, it forced them to serve their exceptional pupils.

The funding issue, which still bubbles along like an ever-simmering pot, will always be on one or another of our burners, but it is, I think, in the paper category. The fact is, the funding issue in Ontario is another manifestation of "the will to do the job" issue. Will is the basic issue. The boards I've referred to did not have the will or the desire to do the job before 1980, but now Bill 82 has told them to do it, at least on some fronts. They have complied with the law on these fronts, and now they need to be told how to do the rest of it, with whom, and by when. This centrist approach is necessary not because boards are no longer willing to do the job, but because with certain kinds of exceptional students (the learning disabled, for example) they really don't know what the best practice is; we haven't done the greatest job in telling them. That, happily, is changing. They can expect a great deal more direction in the near future, and many of them will now welcome it. Our challenge, in the various projects we are completing in this area, is to avoid pushing them back into the avoidance trap by papering things up, or over.

A number of other issues are characteristic of Ontario's experience, but they are perhaps more traditional special education issues than the organizational change issues in this case study. I shall therefore address them in the next and last part of this paper. Nevertheless, without an understanding of the way education systems behave, and what we have to do to change them, all that follows is wasted breath. If the foundation is not secure we have no chance of making the rest of the building sound.

FUTURE DIRECTIONS FOR SPECIAL EDUCATION IN CANADA

Although it has been controversial, Bill 82 represents a significant step forward in providing for exceptional students in Ontario. By requiring boards, for the first time, to provide appropriate special education programs and services for all exceptional students, the legislation generated much discussion and considerable activity at the delivery level. Whether or not the other Provinces follow Ontario's example, there are nine critical areas in which action must be taken across Canada, including Ontario, if exceptional children are to be appropriately and effectively served.

Program

Nothing makes Provincial Ministries of Education more nervous in the special education area than talk of legislating program accountability. This issue has, as a result, been avoided. Since Ministers of Education are ultimately responsible for education, they are ultimately responsible for ensuring program quality. However, the mechanism whereby Ministers do this ensuring is nowhere specified. The argument that they fulfill this responsibility by providing the necessary resources to boards for appropriate programs is insubstantial. Clearly they have a responsibility to ensure that the delivery system is effective. The means of accomplishing this include:

1. Revision of legislation to make program appealable;
2. Instituting provincial systems of inspection;
3. Developing provincial criteria for evaluation of special education programs.

Of these three alternatives, the first is likely to prove the least satisfactory. The courts in Canada, as in the United States, show a marked disinclination to rule on educational matters, arguing that the education profession is responsible for putting its own house in order. Since any appeal process inevitably assumes legalistic dimensions, the appropriateness of special education tribunals to rule on appropriateness of program is open to question, even where such tribunals include professional educators. Such bodies are too far removed from the operational context to perform much more than a paper appraisal of the situation.

There has been increasing pressure from some provincial advocacy groups for Ministries of Education to exercise more "clout" with school boards to ensure they provide appropriate programs for exceptional students. The Association for Children with Learning Disabilities have been increasingly vocal in this regard and have called for (unspecified) penalties to be applied to boards which do not deliver the goods. In similar vein, an enhanced role for Ministry Regional Offices has been called for; the current consultative, intermediary role performed by officials in these offices is considered inadequate in the most difficult cases (i.e., those which generate the most publicity).

An enhanced role for regional offices would inevitably require a return to the inspectorate role common in the 1960's and abandoned because of its inherent difficulties. Any return to an inspection system would be viewed as "turning the clock back" by the education system as a whole. The possibility of a limited inspection role - limited, that is, to specific conflict over programs for exceptional students between parents and school boards - is as alluring as it is unrealistic. It is unlikely that any system of inspection could be confined to this one small area of education. The Ministries are therefore unlikely to open the inspection door, since they lack the resources to undertake systematic inspection of all areas of education.

The most feasible approach is the development of Provincial criteria for the evaluation of special education programs and services. As previously noted, British-Columbia - without mandatory special education - has already initiated a project of this nature and Ontario is likely to follow suit in the near future. By developing such criteria, and requiring boards to utilize them, Provincial Ministries would preserve the important principle of local accountablility while ensuring a measure of desirable, province-wide consistency in terms of quality of special education programs and services. Parent groups and special education advisory committees would be in a position to monitor board provision on the basis of these criteria rather than responding to criticisms of the quality of board provision in the ad hoc manner that often prevails now.

Program quality will clearly be one of the two core issues for the next decade. With a range of provision largely in place, it is already the greatest challenge facing Ministries of Education and school boards. It is as significant as it is encouraging that teacher organizations are among those calling for provincial standards in the program area.

Early Recognition and Intervention

Most of the Provinces require that school boards implement procedures for early and ongoing identification of the learning abilities and needs of pupils. Recent criticisms of school boards' early identification practices have centered around the perceived inability of early identification procedures to "pick up" learning disabilities. It is alleged that many learning disabled children go unrecognized and unassisted for several years in the school system, resulting in increasing frustration, difficulty, and damage to them and their parents. The fact that this criticism is emerging primarily from one special interest group is not justification for ignoring it - students with learning disabilities now constitute the largest single category of exceptional students in most provinces. It has been argued, however, that although it is possible to measure the "visible" handicaps with some accuracy, the "invisible" handicaps do not readily lend themselves to psychometric, or other, assessment, particularly at the time of school entry. Developmental patterns evident at that time may or may not persist; since children progress at different rates, and, during the learning process, normally exhibit characteristics that, if they persist, are deemed abnormal, the assessment function, so the argument runs, becomes virtually impossible to carry out with any certainty. It is no consolation to parents, however, to be told to"wait and see" in the hope that their child may "grow out of it." This merely increases parents' frustration and, if the child indeed has learning disabilities, results in anger against the school system for wasting years of the child's life "doing nothing." A specific procedure to detect learning problems early is accordingly called for.

Contrary to the beliefs of those who counsel delay, there are means of ensuring that children with learning disabilities and other learning problems are detected early. These means must become widely used across Canada over the next few years. Such early screening must take place during the spring in Kindergarten, be comprehensive but simple to undertake, and consume little time so that all kindergarten students can be screened.

If problem areas show up following administration of the screening device, the parents must be notified and informed that the child will be carefully taught and monitored in these areas. If the problems persist, a detailed assessment must then be conducted in mid-Grade 1.

Given the current organization of schooling in Canada, it is only by taking such specific, measured, and immediate action that school systems can begin to serve exceptional children appropriately.

Definitions and Assessment

Definitions of exceptionality vary significantly from province to province. In some instances, a great deal of unnecessary, unproductive effort is expended in attempting to quantify all types of exceptionality. In others, the psychometric approach to definition has been used only for the "visible" handicaps, but the consequent open-endedness of the remaining definitions has left the field wide open for school boards to define each exceptionality virtually as they wish. This can lead to absurd consequences; for example, a child may be gifted in one board but not in the next.

Clearly, Canada needs to come to terms with the definitional issue once and for all. The most appropriate approach is to pinpoint educational needs and abilities through a multi-dimensional educational assessment process (informal teacher assessment and standardized educational assessment). Skills, aptitudes and interests should be carefully evaluated and educational decisions (following consultation with the parents) should follow from them.

The role of psychological assessment is problematic since we know that IQ can change and be changed. Although it has always been considered essential to determine "potential," many exceptional children do poorly on psychological tests because of cultural and other factors; these tests therefore discriminate against them. Many teachers have been surprised at the progress supposedly retarded or slow children have made, and our society has its full share of achievers who were written off by the school system. The issue of psychological assessment and arbitrary IQ cut-offs for placement purposes needs to be addressed across Canada as a whole.

Teachers should be trained to understand that definitions are simply a means of grouping, since grouping is one of the essential skills of teaching. However, our current definitions are so crude that it is time to go beyond them to a more sophisticated, fine-tuned approach that is more sensitive to individual differences.

Because definitions vary from school board to school board and from province to province, but children are basically the same from Kamloops to Come-By-Chance, an ideal solution to the definitional problem would be an inter-provincial agreement on this issue. An initial step in this direction might be the organization of a Canada-wide conference on special education by CEC, with the definitional issue a priority on the agenda.

Teaching Approaches

Effective teaching and effective special education are synonymous. Teachers of exceptional students should exhibit the characteristics of exemplary practitioners. A current study of special education in Ontario (Ontario Institute for Studies in Education (OISE), 1986) is already suggesting that such teachers:

> subscribe to a fully individualized process in which the cycle of objective-setting, program adjustment, and evaluation is followed. The teacher is aware of external program recommendations, and after conducting in-class diagnostic assessments, gauges their relevance, supplementing overly generalized recommendations with his/her own specific program objectives. A variety of groupings are used, including full class, small group and individualized settings and timetabling, and organization of students is generally controlled by the

> teacher's assessment of pupils' program needs. Objectives are specific, timebound, based on diagnosis, and monitored/adjusted continuously. They are also reflective of the longer range program goals set for each student, these being also monitored on a periodic basis. The selection of teaching techniques and materials is controlled by the objectives and goals for each student. The teacher is alert to the overall impact of the program on the student, and adjusts strategies, or the program, if, for example he or she finds that the student's overwhelmed by resource withdrawal or rotary timetabling, or is insufficiently integrated. The teacher is also aware of the student's strengths and weaknesses within each subject/program area, at the same time being alert to any changes in this "profile". External resources are utilized in an integral fashion to obtain feedback and support and to facilitate problem solving on an ongoing basis. Where classroom assistants are utilized, their role is planned as an integral part of program modification, and, where the capability of the assistant has been demonstrated, he or she is used as a planning and individualization resource.

Teachers who fit this description are clearly cognitive in their approach. The analytic skills of these teachers, and their ability to structure student learning in decisive and specific ways, are crucial to their effectiveness. The affective dimension is not ignored, but it is not evaluated to a supreme position in the classroom, either - it is simply, and properly, accepted as a given. Caring and nurturing are qualities that the teacher must possess in order to be a teacher, they are not teaching methods. It is by the specific teaching methods, or strategies, that teachers employ to develop the skills of students that students learn. The students, in turn, as a direct result of their growing skills and understanding, experience growth in confidence, and this translates into improved self-concept. There is therefore not one curriculum, but two - the explicit curriculum (skills) and the implicit curriculum (enhanced self-image). It is a distinct characteristic of effective special education programs that the first is seen as the priority, since without it the second cannot properly develop.

Principals

Principals must become the curriculum leaders in our schools. The OISE research finds that:

> Although the principal has quantitatively more responsibilities in areas such as delivery model modifications and implementation, professional development, leadership, and communication, he or she has responsibilities in the program area that

are equally, or more, extensive. The principal who has fully implemented special education programming in his or her school ensures that program planning involves several levels of expertise, carefully reviewed and that program objectives relate to student needs and teacher development, and have specific time frames and strategies for implementation. Where integration of exceptional students in the regular program occurs, this is arranged according to individual strengths and needs, and supported by careful planning.

Integration

There is considerable evidence that regular classroom teachers are inadequately prepared and/or motivated for integration, and are increasingly questioning the feasibility of teaching exceptional students in classes of 30 to 40 regular students. Since there is strong evidence that it is feasible, the issue is therefore one of professional development of regular classroom teachers. The current (and perhaps understandable) situation of regular classroom teachers being last on the list for professional development in special education must therefore radically change. This may, in fact, be a developmental phenomenon, and the change may already be beginning to occur. Nevertheless a concerted effort must now be made at the school board level to prepare regular classroom teachers to provide for exceptional students integrated into their classrooms.

The Delivery System

If the generally accepted assertion in Canada that "every exceptional child has the right to be part of the mainstream to the extent to which it is profitable" is to be more than a rhetorical statement, the system of special education in Canada must undergo significant change in organizational structure and function during the coming years. If special education is not to remain a separate entity and yet must still retain its identity in the interests of exceptional pupils, a subtle but important shift in emphasis is essential in the education system as a whole. In order to de-emphasize the "mystique" that still surrounds special education, and the "over to you" attitude that some board officials and teachers have towards special educators, special education must become supportive services. Ministry and board policies must be revised to reflect this change in focus.

The Academically Gifted and the Artistically Talented

In a sense, the academically gifted sit uneasily in special education. All other categories of exceptionality relate to disability or handicap. Despite the efforts of some parents of gifted children to prove that their children are disadvantaged (i.e., understimulated and therefore vulnerable to learning and behavioral problems) gifted children are, in the main, the elite in our educational system. In some Provinces, artistically talented children receive special education along with gifted children but in others they are excluded from special education. In some cases, school boards, believing that the Provincial Ministry is splitting hairs, have established their own schools, without special provincial funding, for artistically talented students. These are the children who are likely to become the leading transmitters of our culture - the bright lights in dance, drama, music and the visual arts.

If these Provinces are truly committed to excellence, they must review their policies (or absence of them) towards the artistically talented. We cannot afford not to provide the best opportunities for those children who are capable of making use of them. Special schools for the visual and performing arts provide goals for all children to strive for. They should receive the provincial recognition and support they deserve.

Preschool Provision

This is the other core issue I referred to earlier. It is a basic weakness of most provincial education systems that provision is not made for the majority of children with special needs to receive educational assistance earlier than 5 years of age. In areas such as language and speech, children can learn more before the age of 3 than at any time in their lives. In Ontario, provision is made for hearing-handicapped children who have attained the age of 2 years to be admitted to special education programs for the hearing-handicapped, but this is an anomaly based on tradition. It is astonishing, however, anomaly or not, that such preferential provision for the hearing impaired has not been used as a precedent to secure earlier provision for exceptional children with other types of handicaps. A short-sighted view of this issue would see cost as the prohibitive factor, but the downward extension of educational programs and services for children with handicaps cannot be denied on this basis since there is compelling evidence that early intervention and stimulation will save later, and more costly, provision. Initial evidence from Head Start, and other early intervention and stimulation programs, while not conclusive, suggested that they were potentially the "most effective programs governments can sponsor." This has been confirmed by later results.

In 1978, the American Association for the Advancement of Science published the results of new evidence about the effectiveness of early intervention programs. On the basis of 96 major studies of longitudinal experiments and Head Start program evaluations, it was concluded that early intervention appears to have dramatic effects in the assignment of children to special education classes and on retention in grade, enabling them to maintain their position in the regular classroom. Other "sleeper" effects, which did not show up markedly in the initial studies, were IQ and achievement gains and gains in emotional adjustment. Further, the evidence from Project Follow-Through is that high-quality educational interventions for children from low-income backgrounds can be designed to achieve and maintain developmental gains over long periods of time, and that such programs should be extended as required during the whole developmental period of the economically disadvantaged child.

The success of such programs for economically disadvantaged children strongly suggests that they would be of significant benefit to handicapped children, many of whom are, additionally, economically disadvantaged. If the results from Head Start were replicated in Canada for exceptional children, this would bring about a downward shift in resources towards the preschool years rather than a new allocation of funding in order to provide early intervention and stimulation programs. The related saving in human suffering would suggest initiating such programs as the best investment a humane society could make.

Such a development would move special education provision in Canada from a basically restorative approach to a preventive approach. A number of procedural and "territorial" issues would require resolution in order to permit this to occur. However, the case of the hearing impaired in Ontario and the early childhood services program in Alberta indicates that this is possible. Preschool special education provision is an issue that the Provincial Ministries should open to public discussion and seek to implement at the earliest appropriate opportunity.

If such a bold step is not taken, the gains that we have made during the past decade in Canada will become the highest point in our achievement. This achievement has not been insignificant, but in comparison with what we could achieve through a concerted, nationwide commitment to early intervention, it is like being satisfied with scaling Annapurna when we could, in fact, have a good crack at Everest itself. Of all the issues I have attempted to address, it is the most important, and it is the one with which I wish to conclude this paper in the hope that "the last will become first."

Special Education in the Year 2000 and Beyond:

A Proposed Action Agenda for Addressing Selected Ideas

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SPECIAL EDUCATION IN THE YEAR 2000 AND BEYOND: A PROPOSED ACTION AGENDA FOR ADDRESSING SELECTED ISSUES[1]

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In its broadest context, the field of Special Education is concerned with the policies and procedures necessary for maximizing the potential growth of all handicapped citizens. Our concerns are focused on cost-effective educational interventions directed at significant socially identified pupil variance (Hobbs, 1975). In this paper, selected issues and problems focused primarily on the mildly handicapped (MH) population will be addressed toward establishing a basis for discussion and change as the field of Special Education projects to the year 2000 and beyond. The magnitude of future problems predicted by demographic projections for child variance in the schools has provoked me to limit discussion to MH pupils, who represent the largest, and most rapidly growing handicapped population in the schools (Yates, 1986; U.S. Department of Education, 1986). These issues have also stimulated an examination of several of the unverbalized assumptions which presently serve to delimit the roles and responsibilities of our field in regard to pupil eligibility criteria and the nature and extent of service delivery. There is no intention to suggest that the issues raised here are the most important to the future of Special Education--although I do believe that they warrant our particular attention.

Frame of Reference and Philosophical Biases

The frequently quoted caution of Santayana reminds us that those who ignore history are doomed to repeat it. The evolution of our field is an account of how democratic societies value and address marked individual differences in the schools. Past scientific inquiry related to defining human variance has not been distinguished by its objectivity (Gould, 1981). Contrary to popular belief, science is not free of the ephemeral influences of societal attitudes and public policy (Semmel, 1984a). Identified human variance in schools is a function of organismic variables interacting with political, social, economic, and educational factors which are manifested in instructional contexts. Special Education, to borrow from Gould's more generalized conclusion, "is invested with enormous social importance but blessed with very little reliable information. When the ratio of data to social impact is so low, a history of scientific attitudes may be little more than an oblique record of social change" (pp.21-22).

Public policy in Special Education derives from socio-political forces, often conveniently correlated with results of selected "scientific research" (e.g., Dunn, 1968), to form a consensual theory of appropriate service delivery for handicapped youth (e.g., P.L. 94-142). However, formally enunciated policies are unobtrusively converted to other realities by those who are responsible for their subsequent translation. As mandated policy is promulgated from distal levels of decision making to local levels, the service providers ("street level bureaucrats") determine its ultimate delivered form (Weatherly & Lipsky, 1977). Hence, it is evident that in assuring the legal rights of handicapped pupils through the legislative initiatives of the past decade, we have not necessarily achieved the intention of maximizing educational opportunities or assured quality education and effective outcomes for the MH population.

Philosophers of science and research methodologists refer to the "law of proximal variables" in their assertion that the closer a variable is to an outcome of interest (dependent variable), then the higher is the probability of the former directly impacting on the latter. Hence, when applied to policy driven Special Educational interventions it is apparent that effective achievement outcomes for handicapped pupils are more likely to be influenced by proximal instructional, teacher, and school variables than by distal federal, state, district, or other ancillary service variables operative outside the classroom or school.

Further, our recent experiences in studying Special Education policy in twenty-four school districts in California (Project PASE: Policy Analysis in Special Education) indicated that apparently the more distal a role and/or function is from the avowed purposes of Special Education, then (1) the higher is the salary and cost for that role and/or function, (2) the higher is the perceived importance and prestige of that role and/or function, (3) the less is the perceived ownership of instructional problems resulting from child variance by that role and/or function, and (4) the more resistant to modification of the status quo is that role and/or function (Semmel & Schram, 1983). This observation, if generalizable, predicts that the prestigious roles and functions which are essentially removed from the direct problems of child variance and the instructional process (e.g., district administrative functions, district assessment staff functions, etc.) will be less cost-effective in regard to achievement goals than instructional personnel and their functions (e.g., instruction by teachers and/or aides). Following the economist's principle that all real costs are opportunity costs, we must appreciate that expenditures for the least effective elements of Special Education delivery systems are lost opportunity costs if not reallocated to new or extant effective instructional facets of the program.

Having established my orientation and biases in approaching this presentation, the following discussion focuses on selected issues and future action agenda items for consideration as we look toward the year 2000 and beyond. Hence, this paper addresses concerns related to (1) the over-identification of mildly handicapped pupils, (2) school drop-outs, (3) least restrictive environments for handicapped learners, (4) curriculum and transitions, (5) teacher training, (6) technology and (7) theory, research, and leadership training in Special Education.

1.0 THE OVER-IDENTIFICATION OF MILDLY HANDICAPPED PUPILS

The rapidly growing numbers of mildly handicapped (MH) pupils in the schools is clearly one of the most pressing issues facing the field of Special Education as we project into the future. Over a decade of current public policy has failed to realize acceptable standardized definitions, assessment and identification procedures, or reliable prevalence estimates of mild handicapping conditions. Since the enactment of P.L. 94-142, it is apparent that the prevalence of educable mental retardation (EMR) has been reduced significantly, but we are witnessing a disturbing side effect from this "miraculous phenomenon." It would appear that a rapidly growing number of "cured" retarded pupils and others who demonstrate various school learning problems have contracted a new strain of the "educational disease" which we are identifying as Learning Disabilities (see Ysseldyke & Thurlow, 1984). The eighth annual report to Congress on the implementation of the Education of the Handicapped Act (P.L. 94-142; P.L. 98-199) records an increase of epidemic magnitude (131%) in the number of learning disabled (LD) pupils identified in the United States over the past decade (U.S. Department of Education, 1986). Accruing evidence also demonstrates that characteristics of school identified MH populations are discrepant from both government supported definitions and from identification criteria currently being used by researchers. For example, independent investigations (Kirk & Elkins, 1975; Norman & Zigmond, 1980; Ysseldyke, Algozzine, Shinn,

& McGue, 1982) clearly indicate the problem of distinguishing the LD pupil from the low achiever. The percentage of students classified LD by the states and provinces varies so widely as to be meaningless for generalization to the national level (Gerber, 1984; U.S. Department of Education, 1986). In fact, there is considerable evidence that criteria for identifying LD pupils differ from district to district, and between schools within districts (Semmel, 1984a). Hence, from a parent's perspective, a "cure" for some LD pupils may well be achieved inadvertently by moving to another neighborhood or to another school district, or state or province.

The possibility exists that LD researchers, state and other governmental administrators, and public school personnel may all be working toward different ends in the assessment and identification process. While some policy makers and administrators are looking for increased precision in defining and assessing LD, school personnel may, in fact, be seeking a pragmatic imprecision for maintaining the broadest possible administrative discretion in allocating Special Education resources (Nelson, 1982). Weatherly & Lipsky's (1977) cogent description of the redefinition of federal and state policies by the "street level bureaucrats" surely applies in the translation of referral, assessment, and identification of LD pupils at the school and district levels. Examples of informal policy generation by school personnel contrary to the provisions of legal mandates abound (e.g., McCann, Semmel, & Nevin, 1985). Evidence for stricter eligibility criteria at the state or district level does not necessarily predict a standardization of pupil types assigned to a mandated category; nor does it indicate a better pedagogical understanding of different categories of learning handicap. Hence, stringent criteria serve to establish improved fiscal control, but do not guarantee improved insights into the etiology or instruction of pupils with serious learning difficulties.

Assumptions of Psychometric Orientations

There are four unverbalized assumptions reflecting a strong psychometric orientation to the identification of LD that underlie most federal, state, and provincial policy for Special Education. First, legislative mandates assume that LD represents a disease-like process or biological anomaly, that exists within students, waiting to be detected and measured. Second, current policy assumes that teachers' referrals represent suspicions, not conclusions, about referred students' exceptionality. It is assumed that teachers suspect disability, but psychometric tests confirm its existence. Third, the distrust of teacher judgment is accompanied by the presumption that technically adequate assessment instruments exist. It is assumed that the reliability of psychometric instruments is sufficiently high so as to trivialize the likelihood of false positives and false negatives in the identification process. Finally, it is assumed that decision-making by assessment personnel, relative to both eligibility and placement, reliably reflects assessment outcomes (see Semmel, 1984a).

It is clear that these four assumptions are not warranted by the facts. The great majority of mildly handicapping conditions are probably relative to the particular environment in which they are operationally defined. Hence, they defy an absolute definition, they vary in prevalence rates, they are frequently unreliably detected by psychometric instruments or assessment teams interpreting such data, and eligibility and placement determinations are often dependent on non-assessment variables (Kelemen & Semmel, 1986; Semmel, 1984a).

The Teacher As Test

My colleague Mike Gerber and I have proposed that the teacher is the de facto test in determining learning handicaps in the schools (Gerber & Semmel, 1984b). In our view teachers work within a context that encourages them to differentiate high from low achieving students. They tend to differentially assess pupils using an informal scale ranging from "very-easy-to-teach" to "very-difficult-to-teach" (Zigmond, 1983). Research reported by Brophy & Good (1974) and others indicates clearly that teachers direct their instructional effort and positive affect towards students whom they consider "teachable" and away from students who are unresponsive to instruction or who are particularly difficult-to-teach. Microeconomic models of classroom instruction also indicate that teachers target their instruction at modal students in relatively homogeneous groups in an apparent attempt to reduce the cognitive complexity of planning and instruction associated with extreme variance in student characteristics and abilities (Brown & Saks, 1983; Gerber & Semmel, 1985). Distributions of achievement outcomes in classrooms can be interpreted as evidence that teachers prefer, or even require, homogeneity among students. Gerber & Semmel have pointed out that in making instructional decisions which ultimately trade increased mean outcomes for the class against reduced achievement variance, teachers behave as if they prefer reduced variance. Teachers may tend to allocate the major portion of their instructional effort to modal and slower, but not to the slowest, learners as a means of achieving an efficiency of instructional allocations. However, we do not know the precise point at which a given student is perceived by a teacher as falling below an instructional efficiency "cut-off," resulting in diminished instructional effort. Research has failed to clarify the determinants of this "tolerance limit" (see Christenson, Ysseldyke, & Algozzine, 1982). We have also failed to document how referral decisions relate to objective characteristics of teaching environments, or to different developmental expectations for children at different grade levels. It is well known that teachers rarely refer children with mild learning problems at the early elementary school levels. It may well be that greater expectancies for change in perceived teachability occur at early developmental levels--but tolerance for teaching-learning mismatches decreases as children approach later elementary grades (i.e., 3rd and 4th grades) where homogeneity of performance is considered necessary.

Identification of children by teachers as MH reflects economic properties of classroom process, such as the need to distribute instructional effort among students of differing ability. These important instructional distribution variables appear in contradistinction to the psychometric properties of assessment instruments. Teacher "tolerance" for individual differences may have economic and organizational meaning beyond conventional connotation of patience and forbearance. We have indicated that increased tolerance for students in the lower portion of a teachability distribution, resulting in increased instructional effort, can only be evidenced if either the net resources per class is increased (e.g., reduced class size, additional paraprofessional staff), or through the adoption of more efficient instructional technologies (e.g., microcomputer applications). Further, just as teachers have tolerance limits which reflect in the inability to teach certain students effectively, schools also have such limits due to constraints on their degrees of freedom and ability to organize or reallocate resources to ameliorate student problems identified by teachers.

The alarming demographic increases in prevalence rates of LD pupils has resulted in an inevitable concern for the over-identification of LD pupils which is causing the rapidly skyrocketing costs of Special Education (Tucker, 1980). There appears to be a concerted effort to reduce the number of referrals to Special Education. Attempts to impose stringent psychometric discrepancy models have resulted in unsuccessful and egregious outcomes (Algozzine, Ysseldyke & Shinn, 1982; Warner, 1981; Kelemen & Semmel, 1986). Several innovations have also been introduced toward developing what Wilson (1984) calls "preventative delivery models" for maintaining children in regular grades through early detection of learning difficulties and "informal intervention designed to prevent a further escalation of a pupil's problems" (p. 231). The school site child study or problem solving team appears to be a defining innovation characterizing most preventative models. Our research (Gerber, Semmel, & Schram, 1983) clearly indicates that school based teams do not necessarily decrease the flow of learning handicapped pupils into Special Education. Rather, they encourage more efficient allocation of resources, clarification of educational goals, and a more rational basis for requesting additional fiscal support or new technological innovations, when compared to the standard referral, assessment, identification, and placement "restorative models" which have spawned the standard practices of contemporary district-driven Special Education delivery systems.

If our observations can be generalized, then they suggest the need for more parsimonious practices for referral of difficult-to-teach pupils when compared to extant district-based systems which are predicated on legal compliance and psychometric properties of assessment instruments. It appears to follow from the position argued here that there is a clear need to critically rethink current conception of Special Education for MH children. In the absence of professional agreement and compelling empirical research evidence, federal and state policies represent a "consensual theory" of Special Education for this population, based primarily on unsubstantiated psychometric assumptions. Recent research (see Semmel, 1984a) has provided evidence which indicates the critical importance of teachers in regard to the decision to refer a pupil and the subsequent eligibility decision for Special Education. Ysseldyke and his associates (Ysseldyke & Thurlow, 1984) have demonstrated the relatively high degree of overlap between a teacher's referral and the corroborating decisions of formal district-based assessments. The predictive validity of the teacher's referral in relationship to assessment and identification outcomes has led me and my associates to assert that the teacher is, in fact, the "imperfect test" that determines whether the schools will legally certify a difficult-to-teach pupil as LD and deem him/her eligible for Special Education services.

Ownership of Learning Problems

Many teachers attempt to abrogate responsibility for problem learners through referrals to Special Education. Such decisions are frequently seen as socially acceptable and professionally defensible vehicles for seeking to physically remove problem pupils from the classroom, and thereby, reduce variability in perceived teachability among pupils. Given the complexity of the problems they face in their attempts to distribute instructional effort among a range of learner differences in the classroom, teachers' referral behavior is clearly rational and adaptive. An effective reduction in variance is also achieved from the teacher's perspective if referred students are allocated additional resources from Special Education while they remain in regular classrooms. In this case, a portion of all instructional effort is provided by Special Education, thereby permitting regular classroom teachers to reallocate some of their time to other students or purposes. Thus, referral behavior may be a reflection of an unobtrusive lawfulness in how teachers determine their judgments about teachability. These judgments may become the precipitant of referrals for available special services, and can explain how teacher identification of pupils as "learning disabled" can appear so idiosyncratic but simultaneously be extremely reliable.

From a purely pragmatic position, it does not matter why teachers identify students as difficult-to-teach. A child with an innate or acquired neurological or perceptual handicap will experience a similar instructional history as the "non-disabled" pupil who is perceived and identified as "learning handicapped" by his/her teacher. The important issue is the equally valid prediction that all of these pupils will probably fail to profit from instruction delivered by the teacher. However, there is no simple resolution to this policy problem. If reliability of identification of MH students is demanded by constraining criteria which require the verification of certain characteristics specified by consensual definitions, then teacher referral is unnecessary. Mass screening procedures would be more efficient and more equitable. But the teachers' subjective identification of difficult-to-teach, but otherwise "ineligible," students would still demand an appropriate policy resolution. On the other hand, if teachers continue to serve as de facto tests of who is "handicapped" using criteria related to perceptions of teachability, then control of the costs for Special Education may not be possible.

The critical issue facing us concerns the ownership of learning problems in the schools. The current system of referral, assessment, and identification of MH pupils for Special Education placement discourages teachers and individual schools from assuming ownership of the teaching/learning problems involving such pupils. Who is responsible for children who learn at significantly slower rates than their peers? Who is responsible for students who require significantly more than average allocation of resources to secure even low rates of reliable educational progress? In answer to these questions, and despite rhetoric about "mainstreaming," public policy has failed to discourage the development of Special Education as a parallel "restorative" educational system which assumes responsibility for MH children. In so doing, "special" education as an individually focused intervention has been overshadowed by an administrative system which seeks to comply with governmental mandates (see Ballard-Campbell & Semmel, 1981) and to maximize subsidy (Magliocca & Stephens, 1980). Teachers and schools have been reinforced for referring children into this "second" system. However, reinforcement apparently results not because eligible students are physically removed, but rather because eligibility induces within-school rearrangement of problem ownership. That is, it appears that though teachers' referrals often intend and result in Special Education eligibility (Algozzine et al., 1982; Ysseldyke et al., 1982), "placement" represents a transfer in ownership of learning problems from regular to special educators--more than a change in instructional setting. In California, for example, the great majority of learning handicapped students are served in a resource program in which students are only physically removed from regular classrooms for relatively short periods of time during each week. Hence, the certification of a child and placement under Special Education auspices, usually within the same referring school, has the effect of removing the responsibility from the referring teacher and the school--and placing problem ownership on the more administratively distal district-based "second" system.

The solution to the question: "Who shall be called mildly handicapped?" appears to rest with accepting the relativity of the "mildly handicapped" concept, accepting the limitations of psychometric models for standardized identification, suspending disbelief in teachers' referrals, and simultaneously removing expensive and arbitrary district-based assessment and administrative processes, which are currently required before adequate resources can be allocated. Clearly, existing assessment processes rarely disconfirm teacher judgment. Therefore, it seems far more rational to treat teachers' referrals as "requests" for assistance with problems (Chalfant, Pysh, & Moultrie, 1979), without making the allocation of necessary resources contingent upon expensive, mandated diagnosis of handicap. Formal assessment to identify MH pupils represents a lost opportunity cost... In the future, resources allocated for this purpose should be redirected to the school site for the purpose of increasing instructional alternatives for difficult-to-teach children. The fact that teachers vary among themselves in perceived student characteristics that are considered most salient for judging teachability should not be interpreted necessarily as a threat to "test" validity. Perhaps a more pertinent question would be: "Can a given teacher reliably identify pupils whose response to his/her instruction is such as to predict unacceptable rates of achievement?" If teachers can identify these "at risk" students, then, given the present lack of instructional precision and state of knowledge in our current Special Education "science," the persisting policy dilemma of the identification of MH pupils must be resolved more through political and economic, rather than pedagogical, considerations. Which of the problem students identified by teachers are school administrators willing to treat as handicapped?

Agenda Items Related to Over-Identification of MH Pupils

1.0. It is proposed that Special Education as a field should accept as fact that mild mental retardation, learning disabilities, and emotional disturbance cannot be objectively, reliably, or consensually validated through a standardized operational definition. The relativity of the "mildly handicapped" construct makes it improbable that a clear and utilitarian definition can be realized when prescribed by statute or regulations promulgated at administrative levels above the classroom and school site. The field should accept the scientific fact that currently labeled "mildly handicapped" categories are, for the most part, "fuzzy," overlapping constructs applied to difficult-to-teach children. Such pupils can be validly identified, assessed and assigned to programs only within specified social, economic, political, cultural, and educational contexts most proximal to relevant service delivery and intended outcome variables--i.e., those factors found within the classroom and school site.

1.0.1. If we cannot define and differentiate LD and other MH categories, and we cannot determine the prevalence of each category type in the population, and if we cannot measure these conditions validly and reliably, and if our formal identification of eligible pupils is related to or determined by resource availability and other non-assessment variables, then it would appear evident that there is little hope now or in the future that we will solve the problem of standardizing the identification and differentiation of MH pupils across school, district, state, provincial or national boundaries; **and we should abandon our fruitless and costly efforts to do so!**

1.1. Legislators and other policy makers should be educated to the fact that mildly handicapping conditions are not disease-like entities residing within the child; but rather they represent important school related problems caused by the interaction of individual child variance from modal performance within different educational contexts. Hence, in the future, policy makers must be educated to the fact that the prevalence of such problems in the schools will always naturally fluctuate--not unlike other relative demographic phenomena in our society and economy. Resource allocations to Special Education for MH pupils should, therefore, be periodically determined relative to obtrusive social, economic, and educational priorities of the nation, state, and/or province.

1.2. Policy makers can be educated in the future to this ecological orientation to child variance in the schools as effectively as we have sold the medical/organismic view of mild disability in order to garner sympathy, political, and fiscal support. They must be lobbied to gain their support for a culturally relative definition of MH youth.

1.2.1. Current Special Education proponents should join with a broader coalition for obtaining governmental resource allocations for all difficult-to-teach children in the schools. Such activity will serve the field well without diminishing support for the more easily identified populations of severely disabled pupils in the schools. Under this expanded definition of the domain of Special Education, our field has the challenging opportunity to accept future responsibility for all difficult-to-teach pupils in the schools by directly interfacing with the regular education establishment at the school site level.

1.3. In the future, Special Education for the mildly handicapped should be essentially considered to be an integrated school site service delivery system. Allocations of resources to the local and intermediate district levels for formal assessment, administration, and IEP development and monitoring should be transferred to the school sites for reallocation toward increasing instructional alternatives within classrooms and schools.

1.4. School site administrators and staff should organize problem solving teams whose purpose is to assist teachers with direct interventions in response to teacher-identified instructional problems. Teams should also assist in planning and implementing school-based Special Education interventions, formative evaluation of preventative and restorative programs, and tracking of pupil progress. The team should participate directly in the determination of need for "external" district assistance with problems falling beyond the school's resources.

1.4.1. Reallocated district funds drawn from formal assessment, administration, and IEP implementation budgets should be used to support school site problem solving team personnel and costs for innovative instructional interventions.

1.5. The concept of assessment should change from emphasis on standardizing procedures for determining eligibility of children for Special Education services, to matching educational problems in teaching and learning to effective interventions delivered in settings which are proximal to the problems. Ownership of both the problems and the interventions should rest with those responsible for producing desired child outcome goals. Therefore, future assessment in the schools must be curriculum based.

1.6. School site administrators, in conjunction with their problem solving teams, should determine which students will require instructional resources over and above what would normally be provided to the school for "regular" programs. Additional resource needs to support assessment, prevention and restorative programs delivered within the school matched to identified difficult-to-teach pupils should be organized into the school's proposed Special Education program for MH pupils.

1.6.1. School sites should be required to submit specific plans for implementing proposed educational interventions for children needing Special Educational services. These plans should contain clear descriptions of each school site's MH population, appropriate goal statements, operational descriptions of proposed interventions matched to problem descriptions, and specifications for the evaluation of such program interventions. Pupil growth in academic, social, personal, and other agreed-upon domains will be the primary criterion in determining the cost-effectiveness of school-based interventions.

1.7. The schools should be required to obtain approval for intended instructional goals for designated MH pupils from parents and appropriate district administrators and school boards.

1.8. Federal, provincial, and/or state reimbursement for Special Education of the mildly handicapped should be determined on a **programmatic** basis rather than on mandated pupil eligibility criteria. New methods for determining available resources and equitable allocations to school sites must be developed.

1.8.1. Governmental allocations over and above support for regular education should be determined based upon formulae tied to an appropriate percentage of available governmental resources, the amount determined based on extant priorities and a fluctuating index of the economic conditions for a given fiscal period.

1.8.2. Distribution of resources for specified school site Special Education programs should be achieved through equitable allocations flowing through local and intermediate administrative organizational units.

1.9. Protection and advocacy provisions of current laws for the handicapped should be extended and further codified for mandating the regular education establishment's responsibilities for all "mildly handicapped" pupils at school sites. Administrative organizational units of government should develop procedures for monitoring compliance by the schools so as to assure the rights of all difficult-to-teach pupils to a free and appropriate education in the least restrictive environment. These overseeing agencies will also monitor schools to assure that reallocated resources from the district level are directed toward implementing intervention programs for intended pupils.

1.10. Standardized administrative arrangements (e.g., Special Class, Resource Room) and traditional professional titles (e.g., Speech & Language Specialist, School Psychologist, Resource Room Teacher) will be unacceptable surrogates for descriptions of instructional programs and role functions. In the future, the conventional administrative descriptions of Special Education programs should give way to multidimentional scaling, measurement and descriptions of the components of effective pedagogical environments for difficult-to-teach learners (see Semmel, Lieber, & Peck, 1986).

1.10.1. Formal and informal procedures should be developed which permit rapid, flexible, and effective reallocation of resources within the schools toward generating environments designed for matching appropriate human and material resources to solve the perceived needs of difficult-to-teach learners and their teachers. Hence, in the future, educational environments generated for MH pupils will also be characterized by variance rather than a few modal administrative arrangements which have become the "procrustean bed" of Special Education.

1.11. Future school and district administrators should spend a good deal of their time and effort on the development and maintenance of effective schools. Criteria related to within-school efforts to meet the problems of difficult-to-teach pupils must be paramount in addition to those aimed at increasing modal pupil performance in the school. The assessment of effective school variables should lead to administrative behaviors designed to alter school environments toward maximizing the growth of all pupils (see Good & Brophy, 1986).

1.11.1. Staff contributions to enhancing the educational environment of the school in addressing the needs presented by child variance in learning and behavior should serve as an important basis for determining merit and tenure decisions.

1.11.2. School faculties and administrators should work in "quality circles" toward solving teaching and learning variance problems to which they all claim ownership.

1.12. School sites should be responsible for formative evaluation of cost-effectiveness of interventions delivered to this population. Districts will be responsible to the state or province for summative evaluation of the aggregate of school site programs and procedures. Between- and within-school program variations will be deemed appropriate, in contradistinction to expected standardization around prescribed or otherwise modal programming.

1.13. The proposed expanded concept of Special Education will lead to a broader philosophical basis for considering how democratic societies address the problems of individual differences in the schools. Hence, our focus on variance rather than central tendency will provoke the schools to greater concern for pupils from minority backgrounds, from bilingual homes, from economically deprived families, and all other ecological influences which serve to bring teachers and schools to the perception that a child is difficult-to-teach. The mildly handicapped, then, will be recognized as a heterogeneous population of pupils who are protected by the right to a free and appropriate education; they will be recognized as pupils who "must be taught in order to learn." Future research, practice, advocacy, and personnel preparation will all reflect this expanded ecumenical view of the field of Special Education.

2.0 THE DROP-OUT PROBLEM IN SPECIAL EDUCATION

It makes little sense to help difficult-to-teach pupils in the elementary levels if they leave school prior to completing high school. Yates (1986), Schrag (1986) and others have alluded to the serious problem of school drop-outs and the prospect of the exacerbation of this problem in the future as a result of contemporary educational reform emphases. Schrag indicates that the already high drop-out rates (18 to 25% nation-wide and up to 50% in the inner city schools) may increase. Drop-out rates are disproportionately weighted among black (25%) and Hispanic (40%) students. Initial indications suggest that a great percentage of the mildly handicapped population are dropping out prior to completing high school (Zigmond & Thornton, 1985).

Agenda Items Related to School Drop-Out Problems

2.0. We must take steps to assure that MH students in junior high and high school programs will not be "pushed out" of the schools by site administrators practicing an informal policy in response to present and future pressures to conform to demands for academic excellence and educational reform. We must better understand the relationship between unwed motherhood and the probability of school failure and dropping out of school.

We must learn more about the relationship between behavioral norm violation, absenteeism, school failure, drop-out rates, and delinquency. The problems of MH children and youth residing in correctional facilities are rapidly growing. The prevalence of mild handicapping conditions among delinquent populations is greater than found among the general population. At present there appears to be a disjunction between Special Education programs in the schools and those under the "ownership" of correctional agencies. The importance of school retention of difficult-to-teach pupils in reducing the prevalence of delinquency is well established. Are students leaving school due to academic failure which is deemed too difficult to remediate by "high academic press" schools? Are these schools "sending the message" to difficult-to-teach students that they are unwanted and should voluntarily leave? Do students leave as a result of poor grades signaling their failure as learners and resulting in a subtle form of peer/adult social rejection? Is school failure "manufactured" by the school through poor instruction, inappropriate academic demands, competency test requirements, and the like? We must seek the answers to these questions as our field projects future remedies for the increasing prevalence of school drop-out problems among MH pupils.

2.0.1. Immediate steps should be taken to determine the reasons for school drop-out among Hispanic, black, and other minority MH students in the schools. Particular effort should be directed toward determining the role of parents and family, cultural and linguistic variables, formal school policies, and professional attitudes and practice as determinants of school drop-out problems.

2.0.2. All of the above questions and issues point to the appalling lack of research data on what is rapidly becoming one of the most significant problems resulting from child variance in the schools. Hence, immediate steps should be taken to encourage large-scale policy research into the dynamics of school drop-out rates.

2.1. Upon identification of the reasons for school drop-out among MH students, appropriate agencies should be encouraged to support interventions specifically focused on remedying same and maintaining students at risk within school programs. Such interventions should, where appropriate, seek to both prevent pupils from dropping out of school and reduce school drop-out rates through programs designed to support high risk students and their parents.

2.2. In the absence of effective prevention and intervention program implementation, legal and legislative means should be sought to protect the handicapped pupil's right to remain in public schools. Schools seeking to abrogate their responsibilities to pupils by engaging in informal or formal "push-out" policies and practices should be prohibited from same by appropriate legislative protections offered to at risk difficult-to-teach pupils. The schools, in conjunction with other social agencies, should be required to maintain responsibility for the continuing education of pupils who have dropped out of formal schooling.

2.3. Special education should lead in the development of outreach programs for drop-outs in the community and in correctional agencies. In the future, "second chance" intervention programs should be developed in situ for the school drop-out population. Special educators should advocate for this unsupported, neglected population and directly interface with other segments of the educational community in the development, inauguration, and evaluation of exemplary efforts (e.g., store-front programs in the community, telephone courses, electronic bulletin board instructional and communications programs, and other community, home, and institutional educational delivery systems).

2.4. The time has come for special educators to look to a future in which we advocate and assist in creating programs for all school-aged populations that are at variance from modal school achievement levels and learning styles and are at risk of prematurely discontinuing their formal education. The critical point is that the large percentage of difficult-to-teach pupils who drop out of school must be seen as "our students!" These neglected and unprotected pupils are in need of constructive advocates--why not expand our current views of exceptionality to encompass this group who clearly represent the failures of our regular educational system?

2.4.1. We must also reexamine our current view that formal schooling and education are synonymous. For some children, the school may not be the most appropriate environment for acquiring an education. We must abandon the assumption that the school building is the exclusive locus for educating MH pupils. Creative adaptations from extra-school Special Education programs that have worked with other handicapped populations should be applied to MH pupils who are at risk of becoming permanent drop-outs, or who have already left school prematurely.

2.5. It should be clear that I am proposing a radical reconceptualization of the field of Special Education to address the pressing present and future educational needs of our society--one that, if adopted, will surely bring us all to a point of active leadership in the mainstream of the community of educators. I do not propose "joining" a regular education establishment that has traditionally disclaimed ownership of difficult-to-teach pupils. Rather, I propose a global reconceptualization and extension of our responsibilities, opportunities, and roles as special educators toward becoming strong advocates for all such pupils and developing and operating effective programs for them within the context of school site problem solving teams. If we have the foresight and conviction to assume "ownership" of the educational problems of the large and growing population of pupils who deviate markedly from school site norms, then we will certainly play a significant role in shaping the future course of all public education by the year 2000 and beyond.

3.0 CURRICULUM AND TRANSITIONS IN SPECIAL EDUCATION

Our preoccupation with compliance and rights issues over the past ten years and the general shift toward broader educational reform has resulted in a rather uncritical view of curriculum for handicapped youth in the schools. We have adopted a "watered down" academic orientation to curriculum for MH pupils. The diagnostic-prescriptive models generally associated with programs adopted for LD pupils have been generalized to most MH populations resulting in an emphasis on remediating underlying psychological deficits and problems in basic academic skill development. We have virtually lost interest in occupational education, personal and social skills development, and other non-academic curriculum areas. In the past decade, the great majority of MH pupils have been educated within "mainstreamed" classrooms where a basic academic curriculum emphasis is the norm--and where non-academic skill development is not stressed. Some would contend that school for the MH pupil has become a rather limiting existence characterized by drill and practice in basic academic skills. This has certainly been validated by our research on microcomputer applications with highly motivated MH pupils in the elementary schools in southern California. Elementary school level MH pupils were primarily subjected to math drill and practice when gaining access to microcomputers. (see Cosden, Gerber, Semmel, Goldman, &

Semmel, 1985; Semmel, Goldman, Gerber, Cosden & Semmel, 1985; Lieber & Semmel, 1985; Semmel & Lieber, 1986; Semmel, 1986).

There is a rich and replicated data base on adult follow-up studies of MH pupils which indicates that employment is primarily related to social and personal skill development (Goldstein, 1964). Young MH adults have been found to lose jobs due to a lack of non-manual skills associated with work; and academic achievement beyond 3rd or 4th grade competence doesn't appear to be particularly significant in finding, getting, and maintaining employment in the service or unskilled trades. Despite recent policy initiatives toward fostering so called "transition programs" at the secondary level, research findings reported within the past ten years appear to indicate that unemployment among the handicapped is relatively high and is increasing.

Contemporary secondary school curricula appear to be discordant with the need for training adaptive personal/social skills required for subsequent occupational and community adjustment. It is clear that the educational reform movement has interacted with the LRE provisions of law to produce an emphasis on academic competence for all pupils within the "mainstream." The regular secondary classroom is not traditionally viewed as an environment in which non-manual personal and social skills are developed systematically and sequentially toward meeting subsequent social and employment requirements in the community. Secondary school Special Education interventions are, for the most part, focused on remedying developmental academic deficiencies which retard achievement in other subject matter goals of the regular class curriculum (Deshler, Lowrey & Alley, 1979).

Further, recent studies of school-work experience programs for MH secondary pupils suggest the tendency to pre-select only those students with relatively high functioning levels (D. Semmel, Cosden, & Konopak, 1985). Hence, it may well be the case that when considering high drop-out rates and other selection biases operating in the schools, the great percentage of MH adolescents are not currently receiving needed school-work training programs designed to build the necessary social-occupational skills for successful transition to the world of work.

Elementary and middle school Special Education programs have also neglected the development of initial concepts and skills necessary for eventual social adjustment and gainful employment. The mainstreamed regular classroom and the resource room tend to be structured as incompatible educational environments for meeting such curriculum objectives. Hence, the traditional emphasis on developmental, sequential, and spiral curriculum of occupational education and social skills development leading to successful community adjustment of the MH adult appears to have been ignored by Special Education programs during the P.L. 94-142 era. Developmental "watered down" academic skill objectives have supplanted interests in furnishing MH pupils with functional academic curricula correlated with chronological age and social skills levels.

There is little or no evidence that the curriculum emphasis for MH pupils over the past decade has increased the flow of members from this population into higher education or into careers which are clearly dependent on high levels of academic competency. On the contrary, the evidence appears to suggest that MH pupils have a higher probability of failure in school and community as a function of the increased academic press in the schools and the growing competition for jobs.

It is clear that at all levels Special Education is failing to prepare MH students for the important transitions that they must experience from early childhood through adulthood. The elementary school curriculum generally fails to consider the important discordant values, rules, and expectations facing the child during his formative years in transition from the home to the school. Once completing the elementary and middle school grades, the child is apparently ill prepared to cope with the personal, social, and academic demands presented by the transition into secondary school environments. The high school, as evidenced by the unacceptable drop-out rates and relatively low levels of employment of MH young adults, subsequently fails to prepare pupils for the critical transition from school to adult community living.

It may be concluded that while the past decade has clearly improved the handicapped child's rights to an education in least restricted environments, his/her right to a "free and appropriate" education has, in fact, not been "free" of significant lost opportunity costs and has fallen short of being "appropriate" in regard to preparation for the major transitions from home to school to the community. Over the past ten years, we have protected some MH pupils from the feared "self-fulfilling prophecy" of non-academic programs as expressed by the civil rights advocates of the 1960s and early 1970s. However, it may well be that, for most MH pupils, the subsequent emphasis on "watered down" academics has caused these students' needs to develop important adaptive skills necessary for social and occupational adjustment in the school and community to be ignored.

It appears evident that if we continue with present policy, increasing numbers of handicapped young adults will find it more and more difficult to find, obtain, and hold gainful employment due to lack of relevant preparation in public school Special Education programs. Increasing numbers of handicapped adolescents will continue to drop out of Special Education programs and find their way into the criminal justice system. Given the current press for academic competence within Special Education programs, it is difficult to see how we can remedy the curriculum and transition problems alluded to above without a comprehensive reevaluation in the near future. Without such reassessment, we surely face a future in which the schools will contribute to what Yates (1986) has referred to as a "two-tiered" system consisting of "elites and non-elites" in our society.

Agenda Items Related to Curriculum and Transitions

3.0. To offset the potential negative effects of the academic emphases in current Special Education programs, future efforts should reconsider the delivery of personal, social, and occupational education curricula developed during the pre-P.L. 94-142 era. Special Education programs should develop educational environments in which, in addition to basic academic skills, it is feasible to reintroduce functional academic and social-occupational skills curricula (e.g., study of appropriate job areas, methods of finding, getting and holding jobs, developing occupationally appropriate personal and social behaviors). These rediscovered curriculum emphases for the MH pupil must be instituted in the elementary grades and assured a continuity throughout the MH pupil's educational experiences.

3.0.1. We must also re-evaluate instructional delivery formats that present subjects in isolation (e.g., reading, math, spelling, etc.). Functional academic work can be integrated with social skills through rediscovering the "unit" and "core curriculum" approaches developed over 40 years ago (see Hungerford, DeProspo, & Rosenzweig, 1948; 1952).

3.1. Future Special Education curriculum initiatives must occur without infringing on pupil rights to an education in least restricted environments; and they should not result in a self-fulfilling prophecy with respect to denying certain pupils the opportunities to grow to their highest potential levels of academic proficiency. We must be vigilant to assure that Special Education curricula never become socially acceptable vehicles for discriminatory assignment and practices directed at racial and/or ethnic minority groups.

3.2. In rediscovering social-occupational education curriculum for MH children, we must neither return to the discriminatory practices of pre-1960s times, nor permit the current over-emphasis on "watered down" academic programming to continue. However, we must disabuse ourselves of the romantic notion that all children are academically inclined; and we must moderate our current preoccupation with the value of academic competence for all pupils. A synthesis should be realized which provides for the rights of the handicapped while simultaneously assuring quality education and appropriate preparation for a successful life in and beyond the school.

3.2.1. The challenge for the future is creating a delivery system that offers functional curricula within the same educational environment that provides the MH student with a range of instructional alternatives while assuring his right to LRE.

3.3. The concept of "transition" must take on a broader meaning to special educators in the next decade. We should realize that handicapped clients undergo many transitions which must be supported through specific programmatic efforts. Each transition must be successfully negotiated and accomplished if a completely coherent habilitation program is to be realized by MH pupils. Hence, in the future, we must conceptually and pedagogically link the cultural, linguistic, and socio-economic influences of the home to the child's formative transition to formal schooling. We must subsequently identify the dynamics of sequentially occurring within-school transitions and their respective relationship to home variables. Special Education must develop a strong partnership with the private commercial sector toward appropriating school-work program experiences necessary to assure a smooth transition from the the school to successful community living.

3.3.1. The concept of Special Education in the future must be expanded to encompass an organized societal concern and support system for all who significantly vary from modal characteristics. Special educational curricula and interventions must be seen in the context of a broader societal response to individual differences. However, interventions should not seek to eliminate those valued individual and group differences that serve to define the diversity of our democratic society so admirably. Hence, in the future, Special Education must assume an expanded role for coordination of comprehensive, multi-agency approaches to assisting MH clients over the hurdles which bound the critical transitions of their lives. In the future, Special Education should lead in the development of effective programs for adult and geriatric MH populations. In so doing, the field will also lead in developing a comprehensive "life span" intervention strategy designed to maximize the potential of all handicapped individuals at every stage of life.

4.0 LEAST RESTRICTIVE ENVIRONMENTS AND EFFECTIVE INSTRUCTION

Over the past ten years we have moved from naive interpretations of least restrictive environment (LRE) to relatively sophisticated views of analyzing effective instructional environments. As many of us have pointed out, researching the effects of administrative arrangements on handicapped pupils has proven to be counterproductive (Gallagher, 1986; Semmel, Gottlieb, & Robinson, 1979; Semmel, Lieber, & Peck, 1986). However, recent attempts to determine what school and classroom variables appear to foster achievement have yielded significant findings. For example, the effective school research has delineated a clear set of school variables that are related to academic achievement of pupils (see Good & Brophy, 1986). Studies of teacher behavior and classroom environments have revealed powerful conditions associated with achievement for both handicapped and non-handicapped learners (Semmel, Lieber, & Peck, 1986; Wittrock, 1986). As Schrag (1986) and others have pointed out, direct instructional methods, increased academic learning time, cooperative learning paradigms, peer tutoring, class size, and other variables have been implicated in maximizing student achievement gains.

The provisions of P.L. 94-142 have imposed a set of requirements designed to protect the rights of handicapped children in the schools. The mandate has focused educational delivery systems on "compliance" issues related to assuring these rights. Hence, least restrictive educational environments (e.g., Mainstream classes) have been constructed and maintained following the criteria of adherence to law, but not necessarily following criteria related to the cost-effectiveness of such Special Education interventions. This state of affairs has resulted in a confusion among practitioners and researchers relative to distinctions between empirically validated and/or promising educational variables and ideological positions emanating from advocacy positions. For example, regular class placement with resource room program support is sometimes taken as prima facie evidence for LRE. However, we now know that characteristics of the pedagogical environments **within** mainstreamed and resource classrooms vary from school to school and within the same school and that these variations have a definite relationship to pupil outcomes. For example, Kaufman, Agard, & Semmel (1986) reported that social acceptance of MH pupils was, in part, related to group cohesion among students in mainstreamed regular classrooms. Classroom environments demonstrating relatively high peer cohesion do not tend to socially reject MH pupils. Hence, peer acceptance of MH students may be determined, in part, by how classroom peer constituencies are administratively or otherwise constructed within classrooms. We also know that Special Education "pull-out" programs, demanding that pupils move from one educational environment to another, present a significant potential threat to maximizing academic learning time in the schools.

Agenda Items Related to Least Restrictive Environments

4.0. Research in regular education is revealing instructional conditions that constitute effective educational environments for fostering the growth of "all" difficult-to-teach pupils in the schools. These effective environments are defined by variables that have not traditionally been uniquely associated with Special Education interventions or administrative arrangements. Hence, as we look to the future, we can expect to be particularly hard pressed to define the operational features of Special Education that are distinctive in the educational system.

4.0.1. McGlothlin's (1986) excellent case study of the evolution of a small school district's Special Education program notes that "...the boundaries between regular and Special Education have begun to fade as it has become increasingly clear that effective instruction is effective for all students." She contends that Special Education is not unique in the quality of instruction offered, but rather in the "intensity" of effective practices that can be delivered to difficult-to-teach pupils.

Hence, the time may rapidly be approaching when Special Education as a field will no longer find it necessary to justify itself as creating "unique" and "special" educational environments for MH pupils--but rather we will express its raison d'etre by alluding to a role in assuring the delivery of intensive, effective instruction to those who need it most.

4.1. It is also possible that accruing research findings on effective teaching and effective school variables may well translate into interventions with MH pupils which directly challenge the pedagogical soundness of contemporary mandated and compliance oriented Special Education practices. We might well ask the painful question, "What course of action are we to take in the future if research findings on effective instructional outcomes contradict mandated LRE provisions of the law?" Faced with such a dilemma, will we value educational achievement goals or the fundamental human rights of pupils? If MH pupils in the mainstream receive less direct instruction from teachers, resulting in less opportunity to learn, and diminished achievement, will we agree to their spending more time in segregated settings with smaller homogeneous groups? On the other hand, there is already reason to ask if reduction of regular class size combined with cross-age or adult tutoring and/or microcomputer instruction would be more cost-effective for basic skills development of MH pupil when compared to mandated Special Educational interventions.

4.1.1. It is clear that as we face the year 2000 and beyond, special educators would do well to examine the body of accruing research on effective schools and instruction in light of extant LRE and other instructionally related provisions mandated in law (P.L. 94-142) to determine possible conflicts needing particular modifications and consideration for MH pupils.

5.0 SPECIAL EDUCATION TEACHER TRAINING ISSUES AND NEEDS

Just as we question the distinction between regular and Special Education for MH pupils, it follows that parallel issues must be raised relative to manpower development. Pugach (1986) has examined these issues at length. Her analysis questioned the legitimacy of the boundaries that differentiate Special Education from general teacher preparation. She also holds that the "socially constructed division of university programs" creates inefficiency in solving the problems of teacher education. Finally, she implies that at a time when resources are limited, human and fiscal energies are being duplicated or dissipated in ways that detract from the improvement of teacher education.

Pugach recognizes an obvious unproductive confusion in contemporary teacher training programs. There is a great deal of overlap in the teaching methods learned and the pupils to be taught by trainees, but there is little or no overlap in professional communication or sharing of knowledge and skills among those enrolled in regular and Special Education training programs. She contends that a "gentlemen's agreement" exists in the relationship between the two types of training programs. Special Education training is viewed as agreeing to perpetuate personnel who accept the role and function of teaching pupils whom regular class teachers perceive to be too-difficult-to-teach. General teacher education is seen as assuring that its graduates will disown the problems presented by serious child variance and continue to pursue the services that Special Education provides. Hence, it can be concluded that the current organization and differentiation of training programs encourages trainees to subsequently support the extant dual educational systems for difficult-to-teach pupils in the schools. Pugach contends that the "burden of proof" rests with Special Education university trainers to demonstrate the "uniqueness of content, scope, and clientele of their programs for teachers of the mildly handicapped," and to justify "their reluctance to identify professionally with teacher education as a whole." Further, she reaches the conclusion to her extensive analysis "that the interests of the Special Education establishment, as represented by professionals at the university, are being served by the existence of separate programs for the preparation of teachers for the mildly handicapped." These strong criticisms of current preservice training programs in Special Education must be addressed by our field as we look toward the year 2000 and beyond.

We all appear to recognize that the coming decade will bring significant shortages of Special Education personnel. In addition to the numbers of personnel that will be needed, we face a significant problem in dealing with the quality of professional workers in the field. Currently, in some areas there are up to 30% of Special Education personnel who are inadequately prepared and have emergency certification to teach the handicapped (Schrag, 1986). These practitioners, many of whom work in sparsely populated rural areas, must receive extensive and ongoing in-service training. They, together with the new crop of personnel recruited to work in our field, will face greater demands than ever before in the history of Special Education. The demographic projections demand that teachers be prepared to work with minority and bilingual handicapped learners (Yates, 1986). They will need to master the knowledge and skills necessary for working with the poor, the unwed mother/student, as well as a broad range of pupils representing intellectual, social, emotional, linguistic, and other sources of learner variance. They will need to master the knowledge and generate the behaviors which have been associated with effective instruction. They will have to learn to apply technology in the classroom toward maximizing pupil growth (Semmel, Cosden, Semmel, & Kelemen, 1984). When we objectively view the overwhelming expectations of the teacher's role in the future, it is clear that current support systems and resource allocations will have to be reevaluated in light of impending realities.

Agenda Items Related to Personnel Training Issues and Needs

5.0. Training of personnel in Special Education must become more generic in nature. The special educator of tomorrow must be capable of flexing to the instructional needs of a wide array of difficult-to-teach MH children representing significant perceived variance from modal ability and behavioral level in the schools. Such training must perforce include the development of skills in matching effective instructional environments to the needs of heterogeneous groups or individual MH learners. These teachers will need to be viewed as integral to the general educational system of the schools. They will have to interact directly with their peers in fostering the school-wide ownership of learning problems and in leadership roles for constructing and managing effective interventions. Hence, pre-service teacher training in Special Education will be most effectively realized when integrated with regular education training programs in colleges and universities.

5.1. Teacher requests for assistance with difficult-to-teach pupils within schools should be a principal diagnostic indicator for developing effective school site in-service training programs. All such professional training should take place within classrooms and other proximal school site instructional environments by "model teacher trainers" who are prepared to demonstrate targeted instructional behaviors and methods.

It follows, from the position taken earlier in this paper, that effective in-service training of teachers requires a school-site orientation. The "one-shot" intensive workshop for in-service training must be replaced by in situ school site/classroom training paradigms using appropriate models and new technologies (e.g., Semmel, 1975). School-based problem solving teams should formatively evaluate in-service program outcomes using predetermined instructional process and outcome criteria.

6.0 TECHNOLOGY AND SPECIAL EDUCATION FOR THE MH PUPIL

Comparative research on the effects of the microcomputer vs. more traditional Special Education interventions has generally failed to clearly specify the salient defining features of the respective so called "treatments." No wonder then, that in a recent review of this literature, Lieber & Semmel (1985) found that research which compared CAI delivered through a microcomputer to instruction delivered by a teacher generally revealed equivocal results (see Semmel, 1986 for a comprehensive review and discussion of the research on the effects of technology on MH pupils in the schools). Clark (1983) argues that microcomputers are the "vehicles that deliver instruction but [they] do not influence student achievement any more than the truck that delivers our groceries causes changes in our nutrition" (p. 445). Semmel and his associates have developed a model to guide a four year research effort to determine the effects of microcomputer technology on MH pupils. The model indicates that hardware and software are but two components of complex Micro-Educational Environments (MEEs) that include the characteristics of the learner, peer and teacher behavior, curriculum content, and other identified instructional variables. In seeking to determine the effects of technology on educational outcomes, special educators must consider the variations in MEEs and not just the characteristics of the hardware and software technology configuration (Semmel, 1986; Semmel & Lieber, 1986).

Pressure for rapid acquisition and allocation of technology in Special Education originates with the interaction between the need to develop powerful instructional interventions for difficult-to-teach pupils and the valences generated by entrepreneurial interests within the competitive marketplace. Unfortunately, for the most part, adoptions by the schools have followed commercial marketing strategies which manufacture an excitement and enthusiasm for the advertised potential of the new technology. Administrative decisions to buy into the new technology have not generally been based on empirically validated pedagogical impact of microcomputer applications for the plurality of MH pupils in elementary and secondary schools.

It is clear that microcomputer adoptions are very costly to the schools. Henry Levin has estimated that for every dollar expended for computer hardware, approximately four or more dollars are required for other resources such as supporting software, maintenance, personnel, and special facilities. The overall message is that computer hardware accounts for a relatively small proportion of the total cost of CAI.

We have observed that as the number of microcomputers allocated to classes within a school site increases, there is a corresponding movement toward linking them in school computer laboratories to form local area networks (LANs). The purchase of such networks require technical staff who must either be transferred from other instructional responsibilities or newly employed at a considerable further opportunity cost. Teachers bringing their MH students to such centralized facilities tend to rely on technical staff to structure the instructional contexts for pupils--regardless of the staff's pedagogical training and skills. The instructional characteristics of LANs are frequently not particularly suited to the learning characteristics of difficult-to-teach learners. Once adopting such systems, it is difficult and certainly very costly to alter the curriculum content significantly to meet the specific needs of MH children. For example, the form of leased courseware for expensive LANs will most certainly dictate the function of educational interventions for MH children. Curriculum content is most frequently presented to reflect a subjects-in-isolation instructional model in contradistinction to a broad fields, unit, or core curriculum orientation to instruction. Content is generally presented from a developmental basic skills orientation in contradistinction to a social skills, functional academic approach to instruction of mildly handicapped pupils.

Microcomputer technology has been described as revolutionary, with the capability of transforming the classroom into exciting simulated environments in which students experience systematic instruction to acquire new content knowledge, and in which they can learn new skills and express themselves creatively. While software packages have been developed toward achieving these expectations, the reality of the majority of the instruction delivered to MH pupils through microcomputers in classrooms is considerably more limited and conventional.

Our research over the past three years (Project TEECh, see Semmel, 1986) indicates that while the new technology is extremely costly, teachers of MH pupils use microcomputers in the classroom primarily for drill and practice tasks for which they themselves have provided the initial traditional instruction. Teachers maximize the number of students who use the technology by limiting access time and by having pairs of students work together at the computer. Systematic observations revealed limited teacher supervision of pupils assigned to the microcomputer area. Generally, teachers view the microcomputer as an ancillary innovation which is not an integral facet of their curriculum plan. Certainly it is easier for teachers with little time to devote to the computer to use the technology to deliver drill and practice games than to teach programming, word processing, or new curriculum content to MH pupils. Drill and practice programs are easily used by teachers with relatively little or no computer literacy skills.

Space does not permit a further detailing of our descriptive research results. However, when synthesizing our Project TEECh survey, ethnographic, and observation data (see Semmel, 1986) along with the other reported technology research on classroom delivery system variables an interesting empirically validated contemporary picture of microcomputer applications with MH pupils in the schools emerges. For the most part, the MH pupil gains access to individual microcomputers either alone or more often as a member of a small group, if he/she is in a mainstreamed setting. The machine and its arcade game software format does a remarkable job in engineering the child's attention to math drill-and-practice instructional content. The pupil gains access to the microcomputer to practice what has been already learned, the objective being to increase speed and accuracy (automaticity) of performance. However, the pupil continues to make a relatively large number of errors because he/she apparently has not, in fact, previously learned the basic skills facts. The MH pupil has particular difficulty in keyboard use which might account for superior performance, under certain circumstances, in using paper and pencil workbooks. Hence, the pupil is unintentionally subjected to drill-and-practice as a rather uninspired standard instructional paradigm for basic skill acquisition, rather than, as intended, as extended practice of attained skills. The pupil demonstrates relatively low rates of help seeking behavior when working alone, receives very little teacher monitoring or feedback during microcomputer instruction; and the software generally does not include a dribble file to track the pupil's errors. Typically, the program will offer immediate non-corrective feedback to the pupil. In most cases, the rate and number of errors have little or no consequences relative to subsequent level or quality of instruction presented through stimuli presented on the screen. While some programs attempt to interactively diagnose the pupil's level of functioning, virtually none include sophisticated branching instructional routines for ameliorating diagnosed problems. Microcomputer hardware used in classrooms rarely has sufficient memory to support sophisticated artificial intelligence software packages if they were available.

The research clearly indicates that Micro-Educational environments generally succeed in "curing" the MH pupil's attentional and motivational deficits, and admirably manage the child's behavior by maintaining him/her on-task. Speed and accuracy scores do improve if the pupil has previously learned the content of the program. However, recent results from our research clearly indicate that arcade-like game software may be particularly distracting for MH pupils when compared to unadorned, simple screen presentations. We have also discovered that MH pupils perform relatively better on microcomputer math problem solving tasks when paired with a non-handicapped peer, as compared to working alone or with another MH pupil.

In conclusion, this synthesis of research findings presents a very distant and contradictory message from the advertised promise and potential anticipated use of microcomputers with MH pupils in the schools. The potential for technology to assist the teacher in reducing the variance of instructional demands from difficult-to-teach pupils in the classroom has not as yet been realized. The graphically motivating computer game formats may motivate the learner but distract him/her from maximal performance. The dyadic instructional condition with a non-handicapped peer produces superior results to the individual learner-microcomputer configuration.

Agenda Items Related to Technology and Special Education

6.0. In the future, technology will continue to enjoy great popularity and will continue to be adopted by the schools at a relatively great opportunity cost to Special Education budgets. Decision makers will continue to be influenced by claims that the new technology will cost-effectively reduce needs to instruct pupils with marked learning variance in the schools. However, given its current configurations and evolutionary directions, the new technology is more likely to produce just the opposite effect; it will separate the difficult-to-teach pupils from the average and rapid learners even more than currently utilized non-technological interventions.

6.1. Many researchers have demonstrated the remarkable rates of attending and on-task behavior of MH children engaged in CAI tasks. However, our research clearly cautions that engagement as measured through visual orienting and keyboard responding is a necessary, but not sufficient condition for achieving learning or automaticity of a skill. Learners must be focused on the salient stimuli and critical concepts appearing on the computer screen if desired outcomes are to be achieved. Without careful programming which considers the characteristics of the learner in relationship to stimulus presentation, I am afraid that we run the risk of MH computer users looking but not seeing, and engaging but not learning.

Hence, I caution special educators that without careful instructional programming in the future, the microcomputer, like TV, can easily become "chewing gum" for the eyes and minds of MH children in the coming decade. There is good reason to worry that the motivating properties of the new technology will be used in the future as mechanical "tranquilizers" for the hyperactive pupil, and as non-instructional "mesmerizers" for pupils lacking intrinsic motivation, or otherwise difficult-to-teach pupils.

6.2. It appears reasonable to conclude from the research that insofar as microcomputer applications are used in ancillary drill-and-practice teaching and automaticity paradigms for MH pupils, it may well be more cost-effective in the future to utilize non-handicapped peers as tutors who augment the CAI instruction being delivered for the purpose of skill acquisition--and then assigning the individual mildly handicapped student to a microcomputer configuration using "plain vanilla" type software to attain automaticity of the already learned skills.

The central point here, as we look to the year 2000 and beyond, is that the computer may not be an efficient instructional system for teaching new basic skills to MH pupils through drill-and-practice programs when used alone in its most advertised mode as an automatic instructor of individual pupils and as a means of effectively engaging child achievement variance in classrooms. It is apparent that efficient microcomputer applications will remain dependent on instructional interventions and contextual variables (e.g., peer tutoring) which interact with this form of service delivery.

6.3. There is cause for concern that the lack of instruction in computer tool use skills in Special Education settings may result in a disadvantage for MH pupils when engaged in future CAI instructional programs and in negotiating a future world that promises to be highly dependent on technology. Hence, further research and instructional emphasis on tool use and computer literacy among elementary and secondary school MH pupils is essential.

6.4. We must find appropriate techniques for developing effective in-service training for computer-using special educators. The instructional potentialities of technology can only be realized when shaped by sophisticated educators who are sensitive to learner characteristics, instructional design and delivery, and the limits of computer programming. The demands of the future for an amalgam of knowledge and skill represented by the challenge of instructional uses of computers suggests the need for recruitment and selection procedures to attract talented people into Special Education and unique in-service and pre-service training programs.

6.4.1. The community-based user group model is a more promising approach to training large numbers of teachers to acquire appropriate levels of computer literacy for pragmatic application in Special Education programs when compared to traditional school or district-based workshops (see Semmel, et al., 1984 for a comprehensive discussion of training Special Education personnel for effective use of microcomputer technology).

7.0 THEORY, RESEARCH AND LEADERSHIP TRAINING IN SPECIAL EDUCATION

It is perhaps fitting, if not too professorial, that I conclude this rather protracted discussion with a selected analysis of theory, research, and leadership training in our field. There is clearly an absence of models to guide research in Special Education. The disciplines within psychology remain the basic sources of theoretical guidance for stimulating research in our field. Child development and other psychological disciplines have historically yielded relatively valuable constructs for those of us interested in understanding handicapped children. They have frequently served as the dominant source of substantive curriculum content for research oriented doctoral training programs in Special Education. However, the social sciences (e.g., Sociology, Anthopology, Economics, Political Science) have historically played relatively minor roles in guiding our research or leadership training programs.

It strikes me that rigorous psychological theory offers some among us in higher education, the false comfort of an "academic pacifier" for our need to affiliate with the "hard" sciences. It somehow sounds better and is more prestigious to study information processing, memory, attentional deficit, temperament, and the like when compared to the more prosaic, ecological concerns embedded in the legal mandates and instructional practices guiding the delivery of Special Education services. My observations during 25 years in higher education lead to the conclusion that the Special Education professor playing the uneasy role of research psychologist rarely gains the status and acceptance sought from colleagues in the Arts and Sciences.

Virtually all of the exciting empirical findings on effective teaching, effective teacher education, school effects, media and teaching, conducted over the past ten years, have emanated from the field of educational psychology (Wittrock, 1986). The recently published review by MacMillan, Keogh, & Jones (1986) and the earlier review by Semmel, Gottlieb & Robinson (1979) clearly reflects the paucity of school-based instructional research conducted by special educators over the past decade.

Agenda Items Related to Theory, Research, and Leadership Training

7.0. It is clear that many administrators and practitioners in our field are generalizing the results of the exciting instructionally relevant research emanating from regular education to Special Education contexts. We in Special Education would do well, however, to conduct cross validation studies to verify that these generalizations are appropriate with currently defined MH and other difficult-to-teach populations. This is, perhaps, one important agenda item for future research in our field.

7.1. In past decades, the impact of leadership training and research in Special Education has made important contributions to an understanding of severe disability, but the impact of these efforts has been constrained in contributing to an applied instructional science for pupils revealing relatively mild handicaps in the schools, or on policy issues directly related to service delivery problems in Special Education. The result is a desperate shortage of Special Education researchers and a prevailing belief held by practitioners that research has relatively little to offer them. If Special Education research and advanced leadership training is to function as a vanguard for new concepts and directions as we look toward the coming decades, then universities must reevaluate their professional orientations and values.

7.2. I submit that theory most salient to the development of an instructional science of education for difficult-to-teach pupils (i.e., Special Education) does not derive directly from basic cognitive and/or developmental psychology, but rather from a consideration of the nature of individual learning and behavior differences in the context of the social sciences. For example, the laws, rules and regulations adopted by our society to govern the education of handicapped children (e.g., P.L. 94-142) are, in effect, consensually derived theoretical constructs asserting how best to define and educate handicapped children in our society. P.L. 94-142 constitutes assertions of rights but implicitly defines a consensually derived set of interdependent constructs pertaining to appropriate and effective education for the handicapped (e.g., IEP and LRE). These constructs and their underlying assumptions might well serve as a pragmatic guide for a research agenda that is uniquely focused on Special Education concerns. In addition to supporting the continued study of within-pupil psychological variables and instructional conditions for the modal range of learners, we must develop a cadre of researchers who effectively contribute to an understanding of social, economic, and political influences on Special Educational policy and practice directly related to difficult-to-teach populations in the schools.

7.3. What we desperately need in the future is a new group of trained Special Education leadership personnel with the knowledge and skills to conduct data-based research that validates the effects of different pedagogical environments on socially acceptable objectives for MH learners. I and my colleagues refer to such efforts as training in "Policy Analysis Research in Special Education" (see Ballard-Campbell & Semmel, 1981); and we have been guided by this orientation in the development of our doctoral and post-doctoral leadership training programs at the University of California, Santa Barbara (Gerber & Semmel, 1984a).

7.3.1. We contend that the theories of the social sciences are particularly promising since they give some perspective on the ecological component of the Special Education equation. For example, we must learn more about the sociology of the classroom in relationship to perceived pupil variance. Small group sociological theory could guide such efforts. We must learn more about the economics of resource distributions to difficult-to-teach members of classroom groups. Econometric models and methods might be helpful in guiding such Special Education research. But I fear that if our future leaders rigidly embrace the social sciences to satisfy professional insecurities and needs for affiliation with these disciplines, then they will soon emulate the disappointing results of their colleagues who exclusively prefer the organismic side of the empirical equation.

7.4. Those of us interested in building a knowledge base and leadership training programs that focus exclusively on child characteristics and psychological processes should certainly exercise the required academic freedom--but let's not perpetuate the myth to our doctoral student trainees, practitioners and policy makers that such training and research has direct promise for instructional practice in naturalistic classrooms. Only when our research and advanced training in Special Education reflects the influences of the "street level bureaucrats," can we hope to approach ecologically sound principles for educating the mildly handicapped in the schools. Only when our efforts reflect the reality that politics, economics, and social attitudes affect our "pedagogical science" of service delivery, will we approach a realistic and pragmatic interpretation of the potential contributions of the social and behavioral sciences to Special Education. Only when we consider the most proximal educational variable in our search for effects on educational outcomes of MH pupils will the probability of validating causal relationships in the future increase. We would do well to consider adopting the provisions of such mandates as P.L. 94-142 as consensual social theories to be empirically validated through powerful scientific methods. Our doctoral training programs should focus on building the conceptual and methodological skills necessary for developing such social science oriented research and for building an ecologically valid empirically-based instructional science for difficult-to-teach populations.

In conclusion, no matter how hard some of us try to avoid reality, the fact remains that Special Education for the mildly handicapped is an applied field, it is not the science of human behavior; it is not a sub-field of child development; it is not a derivative of cognitive psychology. Special Education research and practice must be concerned with the interaction between children reflecting marked individual differences in learning and behavior with the molar and molecular social, political, economic, and educational variables within the home, school and society that impact on instructional outcomes. Those of us interested only in the child variance component of the equation should recognize that it is unlikely that we will contribute directly to effective Special Education knowledge or practice.

As we approach the year 2000 and beyond, theory, research, leadership training, teacher training, technology, curriculum, and instructional delivery in Special Education must all be concerned with policy issues which are directly related to the effective instruction of all difficult-to-teach children. Special Education for the mildly handicapped must be reconceptualized as a school-site delivery system. In this way special educators can lead in creating and maintaining a commitment within a unified general educational community to the objective of achieving a free and appropriate education for all children--and by assuring effective instruction for all of those pupils who must be taught in order to learn.

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FOOTNOTE

[1] An abbreviated version of this paper was presented at the CEC Symposium on the Future of Special Education, at the Abbey on Lake Geneva, Fontana, Wisconsin, May 1-3, 1986. I express my sincerest appreciation to Drs. Herb Prehm and Ellen Peters for putting up with the uncertainties of my participation in this project, the delays in delivering this manuscript, and for their warm and helpful assistance prior to, during, and following the Symposium. I also acknowledge the contributions of Ms. Kathy Kramer with sincere appreciation for her proof reading and typing of this manuscript under pressing time constraints. Finally, I wish to thank my colleague Dr. Dorothy S. Semmel for her constructive criticisms and substantive suggestions for improving the quality of this manuscript.

Framework for Policy and Action in Special Education: An International Perspective

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FRAMEWORK FOR POLICY AND ACTION IN SPECIAL EDUCATION: AN INTERNATIONAL PERSPECTIVE

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Council for Exceptional Children
Symposium on the Future of Special Education

May, 1986
Lake Geneva, Wisconsin

1. Preface: Assumptions and Principles

A series of assumptions are woven into the content of this paper and are now presented because they do not elicit universal agreement:

- That the individual is the most important entity in our societies.
- That qualitative education is a right of all developing citizens in our countries; and that denying these rights to any minority is to risk denying it to all.
- That all countries express this commitment to developing citizens by mandating the universal right to education, and supporting that legislation by appropriate regulatory safeguards.
- That children should be given maximum opportunity to learn and to develop their abilities to the fullest extent possible through processes of individualized instruction. This instruction should occur in an environment as "typical" for the society as can be attained, given that age-appropriate shared experiences are one of the primary vehicles of instruction.

- That parents have a right to full knowledge of, and maximum appropriate involvement in, the education of their children; indeed, that they must be reinforced in their role as primary "educators".

- That the educational system as we know it must undergo radical revisions in both attitude and methodology or risk collapse.

These assumptions operate within the most intricate and complex social system imaginable, however. Relationships between individuals, agencies, branches of government, external professional and para-professional interest groups, advocacy groups, parents and all segments of the educational community, all interact on local, national and international levels to either strengthen or diminish the realization of these principles in the future.

2. Introduction: Special Needs Children And their Education

> I lay down as a prime condition of sane society ... that in any decent country, children should find in every part of their native country, food, clothing, lodging, instruction, and parental kindness for the asking ... the children must have them as if by magic, with nothing to do but rub the lamp, like Aladdin, and have their needs satisfied.
>
> George Bernard Shaw, Parents and Children (1914)

Special education services cannot be examined apart from the unique perspective which any nation's citizenry brings to its view of mankind and the value ascribed within that socio-psychological context to human uniqueness. Accordingly, the challenge issued by CEC to present philosophical and practical policy considerations for special education "without regard for national boundaries" is one that should appeal to either the most visionary or the most naive amongst us. This presentation should reveal that the author possesses at least one of these qualities.

Recently the author observed the embarrassment of an educational delegate from Africa, who on approaching the podium of an international congress wanting to say, "I speak to you tonight with a clear mind" instead uttered "I speak with an open head". The broad context of this symposium requires equal latitude of expression.

The author has examined directly the special education services, and the prevailing ethic behind them, in several countries. Extensive observations in Canada were made through lifelong citizenship, two decades of service in the academic community, and a decade of affiliation with the National Institute on Mental Retardation. Two advanced academic degrees were earned in the United States. These early contacts were expanded by considerable recent work on behalf of CEC in the area of microcomputer applications to special education. Finally, sabbatical investigations provided an opportunity to observe at first hand the provisions made for special needs population in England, France, Italy, and New Zealand.

The realities of this Conference are such that an American perspective will prevail; the presence of three Canadians will not insure a genuinely North American posture, let alone an international one. It is important for participants to realize the multi-national response to special needs education, our relative impotence in dealing with major inequities experienced by special needs populations, and yet persevere in a genuine spirit of advocacy on behalf of all children in need.

To provide some perspective on this challenge, a Canadian publication (Macleans, February 3, 1986) outlined the horrendous consequences imposed on the lives of children in a world unable or unwilling to respond to their needs. Fully 21% of the world's children under age 15 (approximately 343 million) live impoverished lives characterized by malnutrition; UNICEF reports that 15 million children die annually from predominantly preventable diseases, leaving malnourished "survivors" characterized by stunted growth, reduced intelligence and diminished productivity. This disturbing information should serve to remind us of our larger human responsibility; both intellectual rigor and emotional commitment is required of symposium participants as they assist CEC to identify the global future of special needs populations.

What role do educators play in facilitating or restricting the life chances of such children? Public schools have evolved as society's official accrediting agency. Through the process of schooling children are exposed deliberately and systematically to units of knowledge (curriculum) and as well to attitudes and opportunities for future life roles. The orientation and organization of national schools dramatically expose the national character and its view of people individually and collectively. The general value systems of the dominant culture are reinforced and conveyed to succeeding generations and youth through the schooling process.

Thus, school access provides an individual with exposure to social mores as well as skills; accordingly those who do well in school are rewarded with greater work opportunities, wealth, power and esteem. What then is the lot of the individual who is denied that access, or provided access to low quality and inappropriate schooling? This paper shall attempt a brief analysis of the variant solutions found to the "issue" of special needs children and their education in a predominantly North American environment.

3. Concerns as We Complete the Decade

At the beginning of this decade the author was asked to review external pressures and impending trends in the social service climate (1). That analysis presented the following scenario for the 1980's:

- increased depersonalization, a corresponding sense of alienation, and the intra-personal/interpersonal stress they create (as one index alone, in the Province of Alberta during the ten-year period of 1968-78, the marriage rate rose only 4%, while the divorce rate jumped to 147%).
- increased national protectionism and a loss of international fraternity (revealed for example, by the infamous OPEC manipulations of oil prices) and the disastrous consequences upon individual nation states.
- increased insecurity, perhaps best illustrated by the apocalyptic events that cascaded into the lives of all involved in the Iran of 1980, or the Libya of 1986;
- increased professional protectionism and self-preservation, illustrated in Canadian medical circles by the "extra billing" controversy, and even more dramatically in the recent U. S. liability insurance crisis where litigation has caused astronomical insurance premium increases in all human services; (Several studies presently before the Canadian government suggest that many physicians regularly bill for services not rendered, overbill, and even carry out medically unnecessary treatments to obtain higher fees.)
- the emergence or the "tool professional", to coin a term, which refers to those individuals who have high technical skills but low moral/ethical standards and a cavalier disregard for the client-person as a whole;
- increased incidence or personal and other-directed abuse, suggested by the numerous figures which report the tragedies such as child abuse and neglect, or the high adolescent suicide rate (in Alberta suicide is the second leading cause of death among teenagers);
- the growing mood of pessimism, apathy and fatalism regarding the impact of all social service professionals in alleviating human suffering on a scale

commensurate with its presence. Numerous treatises have spoken to the issue of professional "burnout" which relates to this trend.

It would be possible to eliminate many of those points from consideration, perhaps even all, as well as to add others. However, evidence abounds that we are having extreme difficulty in coping both collectively and individually with service needs throughout North America. Pressures on social systems are emerging in the form of budgetary crises and staff shortages. Individuals of conscience among the professional ranks are increasingly confronted with their inadequacy in the face of mounting pressures and obsolete service models. Illich calls our era the "age of disabling professionals". Authorities such as Wolf Wolfensburger predict the imminent collapse of the present service structure, and urge conscientious individuals to prepare to open their homes directly to the disadvantaged. It is apparent that we are in crisis, perceived or real, and that this symposium must address that crisis directly.

Before proceeding in Don Quixote fashion to tackle the windmill of the future, it is considered important to briefly examine a few statements of commitment, and to review several historical and international developments which appear to have affected our present state of affairs.

4. A Brief Review of Important Historical Developments In North American Special Education

4.1 Historical Commitments and Accomplishments During the Past Two Decades

We have noted that tremendous and largely positive changes have taken place during the past eight decades in North American attitudes towards "exceptional" children. At least three general stages of reaction have occurred during the 20th century as we moved from persecution/neglect/mistreatment to pity/protection and most recently to growing acceptance of the handicapped person. Integration into the society of the school in the fullest sense possible (the "Least Restrictive Alternative") is now widely recognized as a basic tenet of the special education enterprise even though that ideal is frequently not met.

North Americans have been overwhelmed since the 1950's with academic and colloquial treatises which reflect growing interest in the activities of the special education enterprise. A steady outpouring of emotion, and an equally persistent presentation of objective academic evidence, has emerged to challenge many traditional special education practices. For example, as early as 1962, Johnson (2) suggested that adequate evidence to support the effectiveness of special classes for the "retarded" was difficult to obtain in spite of supportive structures such as low enrollments and teacher salary bonuses.

Enforced segregation of special class students from their age peers was seen to restrict capacity to model effective learning strategies from those children. Specialized and segregated curricula were increasingly viewed as inappropriate and even harmful because they focused on supposed common deficiencies of the child rather than instructional impact. Many critics suggested that mainstream education only could reduce the special educational ghettoes which had developed. The ideal became the "least restrictive environment", one widely viewed as challenging both educators and students to their best effort.

Prominent and respected special educators who had earlier advocated for partial segregation and traditional service models began to review their postures. One of the most noteworthy, Dunn, published a milestone article which called for a moratorium on the placement of mildly handicapped students in segregated settings (3).

Such treatises implored the general education network to accept responsibility for serving a broadly-constituted student population (4). At the same time, special educators were challenged to abandon non-objective and unvalidated teaching practices in favour of data-based empirical procedures. Special education was challenged to become a science based upon single subject (individualized) research-to-practice procedures in contrast to those based on assumptions of student homogeneity. We were assured we would be "continually surprised at what we can do if we are imaginative enough to find better methods and procedures" (5).

These appeals met with intense action on both research and practice frontiers. New methods and procedures were developed and disseminated. Even the most severely handicapped were shown to benefit from the application of teaching technologies. Refined methods to teach coping skills to children being integrated into regular education settings were developed (6). The earlier focus of special educational intervention - the isolated child - was now balanced with a concern for improving the total educational environment. Service models stressing system accountability led to the concept of "zero reject", the philosophical principle and driving force behind both legislative and academic thrusts to serve special needs children (7).

University and college educators sought to improve teacher and aide skill levels as these skills became the focal point for a revised educational process which would assist all children regardless of their degree of biological or acquired deficiencies (8). Improvement in the quality of service was stressed as the "science" of teaching emerged.

In general, the decades of the 1960's and 1970's were periods of rejection of the medical perspective that had so long dominated special education philosophy and practice. Schools sought to distance themselves from a paradigm which seemed to create social and intellectual cripples. Smith and Greenburg (1975) coined the phrase "six-hour retardate" to describe the child forced to appear defective in the school environment but functioning effectively elsewhere (9). "Special" education practices came to be chastised for restricting human potential.

While it was to be expected that such vigorous criticism would be rejected by those entrenched in the prevailing system, the special education environment seemed overdue for transition during the 1960's and many special educators responded (10).

Thus, the 1970's era was marked by a serious attempt to upgrade the quality and quantity of special education services. Illustrative of this trend was the review provided by Tucker (1980) on the American national situation for that period (11). However, Tucker also noted not only a rapid quantitative improvement in services provided by special education, but a significant and disproportionate re-assignment of minority children in more vague and legally-evasive categories such as "learning disabilities". The "new" system had obvious procedural weaknesses in spite of the redirection of philosophy. We retained a persistent tendency to focus on diagnostic procedures which reified disability labels.

The interaction of professional power and social perception was graphically demonstrated in the 1973 AAMD revised definition of "mental retardation": As Blatt (1981) noted:

> the most recent, little appreciated but astonishing revision of the American Association on Mental Deficiency definition of mental retardation . . . literally revolutionized the incidence, prevalence, and concept of mental retardation, all with the simple stroke of a . . . pen (12).

This action demonstrated both the inadequacy of the preceding practices, but as well the potency of those in authority once they are convinced of the need for action.

It is interesting to note that these changes occurred in the 1970's and early 1980's, periods of relatively liberal and humanitarian social conscience matched with corresponding economic stability. History may well show the late-1980's as a transition phase to a period which is ultra-conservative, pragmatic, and economically unstable. How will the special needs populations fair when the public mood is altered?

It would be premature to assume that a continued spirit of advocacy will prevail in a political and economic climate that promotes inter-personal rivalry and enables inconsiderate access to resources by privileged segments of society.

Perske (1977) referenced the potential environment facing the severely/profoundly handicapped (perhaps the group to most benefit in North America from the philosophical and technological revolution in special education):

> If we are ever to engage communities in making a place for the severely and profoundly handicapped, we must possess every skill necessary to bring about their full educational potential, and we must carry out the measurement that is integral to proving their progress.
>
> Unless we create and maintain only the highest standards for ourselves, for our institutions, and for those we train, unfulfilled expectations will over time

> lead to a regrettable loss of faith in this educational enterprise and a lack of belief in the potential of these students. This will in turn lead to diminishing support from school and community, doubt about the practicality and hard-won legislation, and withdrawal of funding for programs (13).

To this observer, we stand to lose many of the humanitarian achievements gained thus far; a spirit of vigilance and renewed vigor is called for which exceeds the energy given by many advocates in the 1960's and 1970's.

4.2 International Obligations: American versus Canadian Interpretations

The decades of the 1960's/70's/80's have thus far provided major opportunities for the nations of the world to identify and activate service programs for citizens previously denied essential human rights, and much discussion occurred at the national and international levels. In 1959 the United Nations Declaration of the Rights of the Child upheld special treatment, education and care for the handicapped under the provisions of its Principle 5.24. This commitment was enhanced in 1971 (U.N. Declaration on the Rights of Mentally Retarded Persons) when seven major protections were verified guaranteeing the dignity of life of such individuals, and included the concept of education as a primary feature. The U.N. International Covenant on Economic, Social and Cultural Rights passed in May of 1976 committed all signatories to national action providing recognition of the universal right of children to an education, compulsory and free to all, for at least the primary level.

Americans can be proud of their formal response to these international obligations. Landmark legislation had been exacted, including Public Law 94-142, Title XIX, Section 504 (amendment to Vocational Rehabilitation Act), the Developmentally Disabled Assistance, and the Bill of Rights Act, to name but a few.

Canada, although a signatory to the same United Nations' commitments, proceeded without the benefit of either a national office of education, or requisite political will, to retain a posture of national neglect that persists today.

This author, in several publications, has addressed the Canadian problem with a view consistent to that advanced by Csapo (1980):

> Canadian special education is best viewed as an intricate patchwork quilt of political accident, professional ambition, and pedagogical oversight loosely bound together with provincial permissive or mandatory red tape and federal neglect . . .
>
> Special education in Canada has emerged according to the exigencies of provincial political, social and economic pressures . . . Vestiges of historical solutions do not provide equal opportunity to education . . . Regional disparities, the need for depolitization . . . and the lack of equal opportunities . . . beg for new solutions (14).

Translated into lack of action at the regional level, the services which many Canadian special needs children receive would shock Americans used to the rigid but persistent monitoring standards of PL 94-142. The Canadian reality of 1986 remains one wherein

> In many districts the goals of special education are still shrouded in mystery, stated in purposefully vague, diffuse, and politically non-offensive terms to satisfy the imagination of every potential advisory group (15).

It should be known that an international investigative body appointed by the OECD to investigate the Canadian educational structure came to the same conclusions.

The OECD report CANADA; REVIEWS OF NATIONAL POLICIES FOR EDUCATION (tendered in 1976) illustrated many deficiencies and concluded that appropriate qualitative special education provision was tragically deficient. Evidence supported the complicity of school officials in extending this negative environment; policies of benign neglect were found to prevail. OECD examiners found Canadian bureaucrats at the front line of resistance to change, and they described our national status with these words:

> Hardly an area in which lack of co-operation among the various levels of government, and between professionals and parents, produces such harmful results as in the case of the handicapped child . . . authorities should delay no longer in removing the obvious deficiencies in provision (16).

While some collective progress toward the provision of full and appropriate educational rights for special needs children can be observed in Canada, the sporadic and piecemeal nature of this evolution begs for logical explanation and is best interpreted politically and ethically. While the physical integration of special needs students into many facets of normal Canadian school life is becoming accepted, such achievements have been accomplished at a snail's pace, largely devoid of major socio-cultural commitment. Related issues such as early childhood education and teacher training are delegated to regional arenas for solution. Attitudinal barriers and administrative resistance continue to hinder the ideal of unrestricted equality of educational rights (17).

In a recent conversation with the author, Harry Dahl (Canadian Governor to the CEC Executive) revealed two recent Canadian phenomenon which bear observing and might well create the climate for change in Canada. In Dahl's own words:

> The Canadian Charter of Rights (1982) Section 15 addresses the issue of rights and identifies that individuals with mental or physical disability are equal before and under the law and have the right to equal protection and equal benefit of the law without discrimination. To date we have not witnessed any major or substantive judgments that used Section 15 as the key basis for argument. Canadians generally are very aware that the Charter of Rights needs to be reckoned with as programs and policies continue to evolve. What impact Section 15 will have in a direct way remains to be seen.
>
> The second area has to do with the generic issue of bilingual education. It appears that this issue cuts across the Western world as demographic shifts become particularly pronounced. In Canada the support for and growth of French immersion programs will generate much greater demands for accommodating child variance ...

Thus, there is some evidence that the legitimate grievances of Canadian special children and their parents may be addressed in the near future, although precedence would suggest this process will be protracted.

This brief analysis of the Canadian special education environment is presented so that American readers realize that the philosophy and implementation strategies presented in PL94 - 142 are not universally shared. They are often even misunderstood in other parts of the continent. Americans are to be admired for the persistence demonstrated in implementing procedures which guarantee even the most severely handicapped legitimate access to an educational system, and which seeks the full integration of special students with their age peers.

Americans appear to have broadened the concept of education beyond the "three R's" in an attempt to serve all children, and now seem imbedded in solving the partial problems in a spirit of moral commitment:

> In light of the professional consensus and the various legal and programmatic arguments supporting it, the appropriate question is not, "Should we do it?" or "Does it work?", but rather "How can we make it work?" (18).

It is heartening to note that the 8th Annual Report to Congress on the implementation of PL94-142 (released May, 1986) continues to press for the attainment of four priority areas of service:

1. to assure that all handicapped children have available to them a free appropriate public education,
2. to assure that the rights of handicapped children and their parents are protected,
3. to assist the States and localities to provide for the education of all handicapped children, and
4. to assess and assure the effectiveness of efforts to educate handicapped children (19).

In the face of this American commitment to action, Canadians can reflect on the following interpretation:

> Perhaps the most noteworthy disparities between the U.S. and Canadian cultures are the two governments' basic commitments: to life, liberty and the pursuit of happiness in the United States; and peace, order and good government in Canada (20).

What the author hopes to arouse by disclosing this position is simple awareness of the impact of collective will, which in a nation is formally expressed through the passage of legislation and appropriate supportive regulations . It is negligent for any nation to permit a disjointed educational posture driven primarily by the political machines of that nation to continue. As the authors of the OECD Report suggested:

> Clearly, some basic elements of national responsibility arise because ... in all modern states:
>
> - education is a right of each citizen, due to each citizen ...;
> - the standards maintained by schools, community colleges, and universities are of national interest, because a large part of scientific-technical achievement and hence economic and social well-being may depend on them;
> - unity of the educational system is a national interest, in order to maintain and guard the freedom of choice (via mobility) of citizens;
> - the educational philosophy of an educational system and the principles underlying its operation are matters of national interest, because cultural and national consciousness depend on it (21).

It is obvious that the rights to education now enjoyed by many children in North America were gained by the vigilant efforts of many advocates, prepared to encounter and overcome barriers in the social, economic and political spheres. That vigilance cannot be set aside, as the process of implementation of the ideals embodied in legislation such as PL94-142 will guarantee a difficult road ahead. Educators must address the severe challenges imposed upon the training and research sectors as they identify effective implementation strategies, implement them, and monitor their ongoing quality.

5. Dominant Trends

As a field, special education has expanded quantitatively and qualitatively since 1970; modifications and new directions are inevitable and reflect the present dynamic state of special education. Some of the trends have occurred internally as a natural extension of on-going programs (e.g., "resource rooms"); others resulted from deficiencies experienced in earlier programs (e.g., services to the dependent handicapped). Still others were forced through outside pressures (e.g., legislating the right to education as a core principle of human need, as expressed legally in Public Law 94-142.)

A minimum of six components of contemporary special education service should be targeted for improvement and expansion as we close this century:

- the emergence and eventual dominance of the non-categorical service model for the handicapped individual;
- an expansion in the age ranges of students served by special education;
- a revision of concepts related to the degree of severity, and a growing acceptance of the "ecological" perspective;
- the positive expansion of technological supports to the special education enterprise;
- the expansion of service delivery by paraprofessionals;
- the continuation of adherence to the principles of normalization and integration.

While several of these considerations overlap, a brief discussion of each is required to assure clarity.

5.1 The Non-categorical Movement And Associated Pedagogical Strategies

The non-categorical movement attempts to reverse the long-practiced trend of the classification of children into specific categories, such as mental retardation, learning disability, and emotional disturbance.

Rather than perceiving each disability category as clearly differentiated from others, this emerging emphasis stresses the common characteristics shared by children across categories. A search is made for generic techniques for diagnosing and remediating the educational problems of many children.

The problem of categorizing and making differential diagnoses based on observations of young children is particularly acute, given the shortage of valid testing procedures for preschool-aged children. Handicapping conditions are not easily identified, labelled, and classified into specific deficit categories. Stress is placed upon criterion-referenced assessment tools and dynamic, task-analyzed remedial curriculums rather than norm-referenced and static procedures.

It is relevant to indicate at this point that a philosophy and supportive technology is now emerging which is a radical departure from the normative model of group instruction which has dominated special education during the past three decades. The strategies are generally categorized as "exceptional teaching"/"precision teaching"/"systematic instruction" and they are based upon two bold hypotheses: that an individual can acquire appropriate skill provided adequate time and instruction, rather than his interpersonal deficiencies; and an individual's intrapersonal learning pattern is the most legitimate entry point for instructional decision-making

Educators operating within this model see their prime objective as the maximization of individual learner growth and assume responsibility for managing and monitoring all classroom behaviors, are expert at planning/implementing/ co-ordinating/evaluating, and accept failure as the responsibility of the learning environment and not the internal restrictions of the child.

Accordingly the learner's needs take precedence over other considerations which normally arise in the administrative or ideological concerns of the school. No single method of instruction is considered best for all learners at all times. Pedagogic tools such as criterion-referenced-measurement and task analysis are essential in determining instructional sequences.

Such procedures are proving dramatic in altering the life adjustment of even dependent handicapped children.

5.2 Expanded Age Range for Special Education

Many school jurisdictions in North America have recently come to demonstrate an expressed willingness to deal with the infant/toddler special needs child. Financing is now broadly provided to permit early access to educational opportunities for such children both inside and outside of the home. In some provinces and many states, diagnostic and treatment services are now available for neonates and toddlers - a testimony to the acceptance of the view that essential components of special-needs service should begin in the early years. Counselling and training for the parents of handicapped pre-schoolers has been established as a core component of such activities.

All early intervention programs share common assumptions, including the concepts that:

- children are malleable; their development and growth can be modified;
- early intervention is judicious because experiences, both positive and negative, are cumulative, and
- carefully designed and orchestrated experiences can positively alter both organic and environmental deficiencies.

A growing research base attesting to the efficacy of structured educational intervention is emerging. As evidence the author cites the Downs Syndrome Infant-Parent program at the Experimental Education Unit in Seattle (Washington, U.S.A.), the Infant Stimulation Program at the Hester Adrian Research Center in Manchester (England), and the Early Education Project of the University of Alberta in Edmonton, Alberta (Canada). These programs share two primary objectives: to facilitate the handicapped child's developmental growth and to demonstrate the corresponding positive effects upon the well-being of the family as an entity.

Further, it is now common to see a variety of social service agencies co-operating in joint ventures of service delivery to "at risk" children as a further demonstration of the dual objectives noted above. Programs which provide crisis assistance and respite care, innovative to the extent that they reinforce competencies and coping skills of parents in the home setting, are widely accepted as legitimate targets for government assistance. Governments generally appear more prepared today to provide legal and financial support whereby affected families receive financial incentives to keep their children at home in maximally supportive environments and when appropriate, to access regular and modified pre-school programs at earlier age levels than normally permitted.

Less commonly, governments are beginning to recognize that we have created needless victims of neglect in an entire generation of adolescents and young adults. They did not receive appropriate educational opportunities at an earlier age, and, as a result, are today largely socially crippled and unemployable. They require massive attention to compensate for the deprivation they suffered.

It is assumed that, as we move through the decade of the 1980's, the trend toward special education service provision of the child will be accelerated and extended from birth to the early adulthood period.

5.3 Expanded Services to Broader Ranges of Exceptionality

There is growing recognition of the need to accommodate those who show a wide variance in functional competencies within the regular school system.

Both pretraining and in-service training programs are beginning to differentiate between programs for the mildly handicapped (the great majority) and programs for the more severely handicapped (the minority). Mild handicaps are often termed "high incidence handicaps" simply because they occur more frequently while severe handicaps are known as "low incidence handicaps" because of their statistically less frequent occurrence.

Many jurisdictions in North America have developed service priority statements which favour the development of community-based services to the severely handicapped (low incidence) population primarily because these children have been the most neglected in the past.

Many psychologists, sociologists, and educators today favor an "ecological" approach to the concept of atypical/special-needs children. In this view, the interaction between the individual and his social environment is seen as the most critical factor in human development.

To adhere to this posture, one views handicaps as enhanced if not caused by negative social and environmental forces of a negative type. For example, "retardation" has a different connotation in those societies that do not value verbal intelligent adaptive behavior as a priority.

5.4 The Positive Impact of Technology

Major gains have been made this past decade in the direct application of technology to the partial resolution of the learning deficits of many individuals with special learning problems. Today the media, and particularly television, is playing a larger role in the enhancement of educational opportunities.

The simultaneous developments in the area of computer technology have been radically advanced because of development and improvement of the inexpensive microchip.

Exotic but powerful accomplishments of the microchip industry have emerged in the development of adaptive peripheral devices which allow severely motor impaired individuals to access a microcomputer and thereby the associated benefits of learning technology. Broader gains have resulted in two other areas, the application of computers to facilitate direct instruction (Computer Assisted Instruction - CAI), and to simplify and assist complex instructional processes (Computer Managed Instruction - CMI).

CAI programs attempt to guide any candidate learner through powerful pre-established educational programs; they are especially useful in enhancing a variety of specific skill areas. Effective CAI programs enable the simultaneous presentation of audio and video supplements to basic instruction (such as graphics, color display, slides, audio tapes, films, and video-tapes). CAI adaptations and "expert systems" further enable instantaneous evaluation of all learner responses while providing direct reinforcement to encourage learner effort.

CAI can be assumed as a major component of the special education enterprise in the near future.

Computer-managed instruction (CMI) permits the computer to assist in important supplementary facets of the educational enterprise. These include time consuming tasks such as record- keeping, the development of Individual Educational Plans which are so critical to special needs programs, and the translation of diagnostic data into remedial plans, to mention but a few.

It is assumed that CAI and CMI factors will continue to demonstrate program and cost effectiveness throughout North America in the next two decades. Further, it is assumed that such developments will be especially applicable to geographically isolated areas, such as the Northwest Territories, which are inaccessible to cost-effective, large population service procedures by virtue of sparse population and harsh terrain.

Podemski (1980) recently addressed the major impact which technology is expected to have on the teacher-student relationship:

> . . . Full incorporation of electronic learning technology will require that teachers become more expert in diagnosing student learning style, instructional needs, monitoring student progress, and developing remediation strategies for those who are not able to learn. The student-teacher relationship will be much more personalized with contact between teachers and students being less frequent but more intense, during the periods of interaction. Master teachers will need to manage learning teams of other teachers and professionals . . . (22)

5.5 The Expansion of Community-Based Para-professionals Supports in Special Education

It is assumed that North America will continue to experience limited social service and educational financing, as these sectors of the economy compete for ever-shrinking tax dollars. In such a climate, the exclusive provision of services by the professional sector of the population cannot be supported as one guaranteeing equity and quality of service.

Accordingly, it is assumed that a corps of "paraprofessionals" working in a community-based setting (and perhaps drawn almost exclusively from that setting) will carry on much of the "hands-on" work required for the special needs population.

It is further assumed that upgraded responsibilities will result in a commensurate level of salary and status for those participating as paraprofessionals.

5.6 The Principle of Normalization as the Philosophical Base for Services

Normalization has become a captivating catchword standing for a whole new ideology of human management. According to Wolfensburger (1972), the intricate concept of "normalization" originated with the Dane, Bank-Mikkelsen, who urged society to enable and empower handicapped citizens to obtain an existence as close to normal life as is possible.

Wolfensburger provided an excellent description of the normalization principle, and further refined Scandinavian statements for the purpose of the North American audience: he called for the reversal of biases against the handicapped by the direct and indirect application of image enhancing skills appropriate to culture-specific environments (23).

The emphasis became one of allowing and encouraging individuals to lead "culturally normal" lives by modifying the environment, and obviously the educational system would become a primary target if societal expectations were to be positively altered. To repeat, the schools convey the social mores of the dominant sectors of society, and this can transmit both traditional values and radical alternatives to unjust situations. If negative reaction to handicapping conditions was culture-specific, then culture-specific remedial strategies could be shaped by the schools acting as social change agents. However, the integration strategies are most effective if they proceed after an analysis of unique national and regional facets in the social environment.

An analysis of the issue of integration carries political implications which must be fully appreciated and understood if the technical problems are to be satisfactorily solved. As Dybwad (1980) suggests:

> In the field of special education hardly anything provokes heated controversy as surely as the use of the new catchwords: mainstreaming, normalization and the least restrictive environment. Ensuing conversation reveals that these terms are seen as representative of an intrusion or even an attack on well established philosophy and practices in the field of special education (24).

The reader should be reminded that forced legal mandates appear to be culturally appropriate in the context of American legal and governmental history. Powerful legal statutes such as PL94-142 are culturally normative there because they derive from the Constitutional guarantee of rights for the individual. Canadian constitutional history and tradition would make an equivalent national statute impossible to effect in Canada, given the provincial/federal power distribution and Canadian disdain of litigation processes.

Full integration encompasses the actualization of three interdependent elements - temporal integration (time spent in the regular classroom), instructional integration (sharing in the instructional environment), and social integration (acceptance by classmates). Our efforts as child advocates must be maintained once new legislation is adopted in order to go beyond temporal and instructional integration. This requires a careful analysis of roles amongst all sectors of the educational sector: administrative, instructional, and supportive personnel involved in both regular and special education. Mittler provided a surprising interpretation of the integration issue in a challenge to the more economically and technically advanced nations:

> In some ways the most advanced countries encounter the greatest difficulties in facilitating integration ... countries which do not have a special education system therefore have the opportunity to develop integrated education for all handicapped children without passing through the stage of segregated special education as experienced in the developed countries (25).

It is assumed that these principles will be globally accepted in the next two decades, and as a result the boundaries between regular and special education will dissolve.

- special needs children will be seen as individuals whose educational needs are considered as a reflection of human variance and uniqueness;
- these needs will be dealt with in a range or continuum of educational settings that reflect the wide spectrum of human individuality;
- each special needs child will be maximally served in the least restrictive setting possible and even isolated communities will be seen as appropriate normalization settings.

5.8 The Emergence of Alternate Training Models For Both Professionals and Para-Professionals

It would now appear that institutions of higher education are demonstrating readiness to stress more applied skills consistent with a competency-based model. We can expect both professionals and para-professionals to become more proficient in the delivery of "hands-on" skills to special needs children.

We are at a watershed point in service development where a major re-orientation in both the design of intervention programs and the concomitant upgrading in the training level of our personnel are required. Innovations are necessary in training efforts at all levels. The most pressing skills required by both professional and para-professional caregivers are those which provide continuity of service through time, which maximize parental and familial roles and which employ the integration of trans-disciplinary and multi-disciplinary procedures.

5.9 The Emergence of the Parent-as-Professional

Perhaps as an outgrowth of attitudes supporting pre-school experiences as a priority, and/or perhaps because of the research testifying to the home as the most viable of all learning settings, it is possible to discern a growing recognition by various professional and legislative sectors that the parent is the primary educator of the child. As a minimum, the emerging ethic perceives the parent as a full and legitimate partner in the educational process. Research Programs (such as that sponsored by the University of Oregon Center on Human Development) report substantial gains in the developmental profiles of delayed children when parents are taught to recognize and actively facilitate the achievement of developmental milestones expected of all children. Accordingly, the child's home and neighborhood comes to be viewed as a rich educational resource center. Parents and parent substitutes can be viewed as responsible for both direct instruction and monitoring of child progress throughout the child's pre-school teaching regimen.

6. Eight Support Components for Policy Development

What implications to these trends have in the emerging ethic of special needs education? Out of the above, one can identify unique and specific service principles which could be targeted as ideals toward which we might guide our view of the future at this symposium. These include equity, comprehensiveness, flexibility, accountability, cost effectiveness, compatibility, consistency, and simplicity. Each will now be briefly discussed.

6.1 Equity/Equitability

This factor identifies the need for special education service allocations to be allotted in such a way that geographic, age, sex, soci-economic variables (and the like) do not operate to favour or disfavor any one group. The concept of equity assumes administrative advocacy - specifically, those in positions of control must be responsive to the needs, interests and concerns of all. Perhaps the area of microcomputer assistance to special needs individuals most dramatically demonstrates this point, although numerous others could be equally identified.

It has been this observer's experience that microcomputer allocation has been less than equitable in the schools, with age, sex and disability factors all operating to reinforce access by the "privileged". Who will guarantee that special needs populations have equitable access to the technological supports necessary for this maximal integration into society?

Certainly, if the consistent resolve of the U.S./OSERS Assistant Secretary, Madeline Will, is any indication, the American government appears determined to overcome these inequities as we enter a radical and new phase of advocacy:

> . . . all students, including those with disabilities, have the opportunity to lead productive adult lives and to be integrated in a heterogeneous society, independent of undue reliance on others (26).

6.2. Comprehensiveness

"Comprehensive" special education programs provide a full range of educational options with appropriate support services to insure the attainment of service quality and quantity.

In the past, we have held the Cascade model of services as the most comprehensive service system. In addition, considerable service levels attained for school age children must be extended to the very young, and to those in "transition" from school to the workplace.

As Will (1986) recently noted with reference to the young adults who graduated from school programs into a service world with no productive alternative:

> Because one of the major problems facing handicapped youth is the lack of continuum of services to provide an effective bridge between school and work, transition becomes a pressing issue for disabled youth, their families and education and service professionals. The absence of appropriate transition bridges limits our ability to maximize the productivity and independence of disabled individuals (27).

Will's argument further suggests the right and ability of all special needs populations to participate in gainful employment.

Symposium delegates must be prepared to advocate for those young children and young adults not normally considered the concern of public schools.

6.3 Flexibility

Special education programs are seen as flexible to the extent that changes within the organizational structure can be made in both major and minor components with a minimum of complexity. For this to occur, special educators must prove themselves to be both efficient planners (which requires a clear vision of our mandate) and adaptable innovators.

This observer's evidence suggests that the educational community seems poorly prepared to demonstrate exemplary planning or innovative strategy. Drucker (1969) wrote that

> it is not possible to be effective unless one first decides what one wants to accomplish . . . It is not possible to manage, in other words, unless one first has a goal. It is not possible to design the structure of an organization unless one knows what it is supposed to be doing and how to measure whether it is doing it (28).

With reference to innovativeness, the public school sector has not provided consistent leadership status. Lindsley has identified that many powerful technologies were resisted by the educational community until the eleventh hour. These included moving pictures (1911), the typewriter (1920), overhead projector (1944), television (1962), programmed instruction (1955-68), and microcomputers (1977). Even today, the mass presence of microcomputers in schools is not a guarantee of their appropriate utilization or equitable distribution to children (29).

A study commissioned by the National Science Foundation in 1973 reported a time lag of two decades between discovery and implementation of ten major technical inventions (30).

Are members of the symposium prepared to address the major challenge issued by Podemski:

> . . . If the public schools are unwilling or unable to alter their organizational and instructional delivery systems . . . They will face increased pressure from parents as well as private and commercial interests to de-control education . . . Questioning will result in continued erosion of public confidence . . . (31).

6.4 Accountability

A special education program will be seen as "promoting accountability" under those conditions in which the children are proven to have benefited in a direct and observable way from the services provided. This has long been identified as a major deficiency in the entire special education enterprise (recall Dunn's classic polemic of 1968). White and Haring recently expressed this challenge most powerfully:

> Children grow. They grow and change every moment they are alive. As teachers and educators, we deal with children's lives in an very intimate and significant way, for we have been given the responsibility of facilitating and promoting that type of growth called learning. It is no small task. Most children gain from the educational process. They go on to live happy, healthy, and productive lives. For some, however, the trials are great; the opportunities, few; and the skills of their teachers, all too frequently inadequate. In a moment of critical decision for these children, we may fail to act or act inappropriately. By the time our mistakes have become painfully apparent, the momentum of our error has

> grown; or worse, the child may be learning behaviors which will be counter-productive to his eventual happiness and success. Our pounds of cure accumulate, and our energies are quickly depleted for lack of that single ounce of prevention. A child is handicapped (32).

It is apparent that the special education service community must accept its share of pecadillos - both sins of omission and sins of commission - and do something about them.

One sign that this is occurring is the major paradigm shift in labelling practices - from a focus on client deficiencies to one stressing instructional services and methodologies. Meyen's definition provides a clear example of this positive transition:

> Instructional options for exceptional children are those that require:
>
> - accurate, in-depth assessment of learner strengths and weaknesses;
> - intensive remediation intervention attention by specially trained teachers, support personnel, and instructional aides;
> - a focus on instructional needs that require more time to remediate than routinely can be accomplished in regular instructional settings;
> - precise instructional planning by teachers and support personnel;
> - the use of specially designed instructional materials and/or activities;
> - modifications or adaptations in the organization and/or structure of the regular curriculum.
>
> Given that the instructional options meeting the above conditions are established, children and youth whose characteristics dictate the need for such instructional options would be considered exceptional (33).

Meyen's perspective places the full burden for effectiveness upon the special education community. Are symposium participants prepared to support and extend this major paradigm shift, and accept the consequences it entails?

6.5 Cost Effectiveness and Compatibility

All preceding factors considered, it is obvious that the special education sector is a costly one to finance, creating considerable tension with other competing sectors of the system. In the United States, federal, state and local authorities all contribute to special education coffers, while in Canada the burden is shared primarily between provincial and local authorities. In both countries, however, the rights and responsibilities assumed by any sector of government creates considerable confusion between these sectors regarding service delivery impact, and this confusion frequently leads to rancor and debate.

This is especially true for those sub-populations only recently allowed to school, the multiple and severely handicapped, who require advanced levels of service assistance. As reported by the U. S./OSERS 8th Annual Report to Congress, their service integration needs involve a complex interplay between all facets of human services:

> There are certain populations of handicapped students with service needs so diverse and complex that effective services cannot be achieved unless interagency, interdisciplinary mechanisms are in place. As more interagency, interdisciplinary models for serving handicapped infants, handicapped youth, and seriously emotionally disturbed students emerge, certain factors also emerge that are considered essential for enhancing the success of these efforts:
>
> - There must be an impetus for agencies and professionals to work together.
> - Professionals from different disciplines must be trained to work cooperatively.
> - There must be an incentive for professionals to work together (34).

Symposium participants are challenged to develop cost effective strategies which insure program impact upon children within the realities of a highly competitive environment. This will require extensive internal planning as well as intensive interagency communication efforts. The consequences of failing to plan and communicate are significant and potentially lethal. Should our advocacy efforts fail, we risk alienating decision makers and the general public, and extremely limited service models characterized by traditional inequity will re-emerge.

Our challenge remains one of convincing ourselves and others that the rights of education are inalienable, and that the goals of education for special needs populations are totally compatible with the other educational sectors - preparation for life.

6.6 Simplicity

Given preceding evidence, how can one suggest "simplicity" as a primary objective for the special education enterprise? We have come to see a confusing array of social, political, and economic factors affecting the realization of ideals reflecting the equality of educational opportunity. We have come to realize dynamic tension as the norm: proponents of contradictory philosophies in the social/political/economic spheres strive to dominate. Special education practices, as they affect the child in his home and school setting, are deeply affected by larger social issues (e.g., socio-economic status, race relations), larger economic issues (e.g., equity, cost distribution), and most importantly, political issues (e.g., resolve of elected officials, the public will, the bureaucratic force).

It is apparent to this student of human behaviour that the contemporary maelstrom can be more clearly perceived if one focuses upon essential questions of ethics and commitment to human betterment. The recent Live Aid concert was supposedly a technological and logistic nightmare, and yet it was achieved: a tribute to human will and cooperation. Major historical human triumphs have consistently faced "insurmountable" odds which were gradually and ultimately overcome by human resolve.

The most effective human systems are those which avoid needless complexity and permit effective action to be instigated and completed effectively. This statement is as true for the special education enterprise.

Blaschke (1975), in addressing the shortcomings of special education technology, clearly identifies the persistent problem:

> The technology is here, however, for a society so adept in developing technology, we have been inept and indeed negligent in developing the political, social, human and organizational innovations to apply that technology in such a way that its benefits can be realized.

> This is particularly true in education and indeed this is our challenge (35).

This view of curriculum stresses the ultimate objectives of education as "preparation for life", something that is deprofessionalized because it recognizes the legitimate role of many "teachers" in assisting special needs pupils to attain maximal competence. It will be interesting to observe the reaction of the body politic of professional educators to this expanded humanistic posture. (Please recall the earlier quotation by Dybwad on this matter.)

A recent report released by the Indiana Division of Special Education (1986) called for a new and expanded future for children with substantial handicaps. This "second wave of the least restrictive environment" recommends no less than total integration (called "communitization") be sought after. Essentially, the report challenges us to develop an integrative view of society based upon the innate value of the individual and the enhancement of cultural diversity. The educational community maintains a critical and yet integrated status in facilitating the achievement of these goals if schools could develop and implement curriculums which:

- promote a holistic approach to lifetime needs;
- provide options and alternatives;
- build bridges between school and independent life that include the option for meaningful work;
- focus on teaching functional life skills that are needed for work and in social interactions;
- redefine what special education will be for persons with substantial handicaps;
- adapt working and living environments to accommodate persons with substantial handicaps; and
- develop collaboration between and among governmental agencies and programs at the local, state, and federal levels (36).

7. Conclusion

> All acts of genius are 2% inspiration and 98% perspiration.
>
> Charles Bliss

It is presumptuous to expect that symposium participants will achieve closure and consensus on a single model to shape the future of special education at this one session. Perhaps the only consensus possible is in the process and not product domain: a commitment to rigorous intellectual and emotional energy as we pursue nothing less than the best of all possible worlds for special needs children. More than ever that objective will require an internal liaison between the research/practitioner components within special education, and numerous external liaisons between special education/regular education/non-education service sectors of society.

As suggested earlier, there is considerable evidence that the education sector is not prepared to accept significant changes to the status quo in spite of an impressive track record in previous decades. Consider the following:

- Duttweiler (1983) indicates that in spite of the obvious advantages of utilizing technology to facilitate improved learning by all students (e.g., alternative instructional modes, differing learning strategies, improved communication) there has been no "technological explosion" in the schools because of poor correlation between phenomena arising in industry (poor software, incompatible hardware), the educational profession (poor training, inappropriate administration models), and the society at large (inability to radically revise the present governing structure and organizational pattern of ineffective schools) (37).

- Boulding (1972) identifies the education sector as immune to challenge because it has not been held accountable for the distribution of wealth and energy in setting its priority objectives. Proven methodologies in education are not widely disseminated or accepted, and educators are not supported or enabled to become productive with the new advances in technology. In a nutshell, the education sector is relatively impervious to change (38).

- Gaylord-Ross (1969) deplores the schism between practising educators and the academic research community, and citing the field of mental retardation notes that neither sector initiated or responded to the "legal and political revolution" which occurred to guarantee treatment, education and integration for mentally retarded citizens (39).

- Grossnickle and Laird (1983) in commenting on the fate of educational innovations studied by the Rand Corporation, indicated that local implementation strategies in themselves marked the success or failure of even the most powerful innovations. The Rand Study further specified that the most common procedures for implementing innovation (outside consultants, one-shot training, prepackaged management approaches) were largely ineffective. Effective outcomes occur primarily when concrete, teacher-specific, extended training occurs, and maximum ongoing participation is facilitated (40).

- Spitzer (1983) identifies the entropy concept to account for the impatience of much of our present training. Spitzer indicates that when left alone, performance will always tend to deteriorate toward mediocrity, and will only improve when it is supported by the performance system. He indicates that performance systems will fight off the threat of change and attempt to re-establish equilibrium at a satisfactory level of mediocrity. Sadly, Spitzer concludes, training alone is virtually guaranteed to have no enduring impact (41).

In order to provoke thought and stimulate action, allow the author to advance the view that public education and its special education component will not respond with adequate force or appropriate speed to avert a major crisis of confidence and corresponding loss of public support. In itself, the technological revolution driven by outside social political and economic forces will insure that a crisis will occur soon. We suspect that we are not preparing our children generally for the future, let alone our special needs population, and that only radical changes within the educational structure will reverse this phenomenon. Advances in electronic technology will continue to impact society and many contemporary special education practices and administrative structures will soon be obsolete.

Please allow closure to this presentation with reflection upon the following:

> If the public schools are unwilling or unable to alter their organizational and instructional delivery systems to incorporate this technology then they will face increased pressure from parents as well as private and commercial educational interests to decontrol education and open it up to market forces. . . Parents will begin to question the traditional role played by most teachers, and possibly will question the need for traditional school attendance itself. This questioning will result in continued erosion of public confidence in education and a decreased willingness to finance public education which duplicates other alternatives available (42).

What is suggested here is that the wise (and hopefully humane) special educator of the future will be one who promotes and implements instructional and organizational innovations that maximize the appropriate use of developments in the interpersonal and technological domains. Some of these innovations will occur in the physical environments we now call schools, while many others will occur in extended learning environments of the broader community. This move in itself will require courage; but it is necessary if special educators seek to remain as significant as others in the lives of special needs pupils who have every right to seek our help in achieving self-assurance, competence, and personal achievement.

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